

## 6. Research Contributions

### 6.1 Outline of Research Contributions

Published papers are classified as follows:

- (A) refereed papers,
- (B) research reviews,
- (C) books,
- (D) research papers in bulletins and reports,
- (E) textbooks for lectures,
- (F) articles in newspapers and magazines,
- (G) non-refereed papers,
- (H) data acquisition and collection reports.

The refereed papers (A) are subdivided into three categories; (A1) complete refereed papers, which are usual refereed papers published in the scientific or technical journals. (A2) refereed papers, which are refereed papers read at scientific meetings. (A3) abstract refereed papers, of which abstracts are refereed. The papers in (G) are also subdivided into two categories; (G1) papers presented at meetings or conferences and (G2) non-refereed papers published in academic journals.

However, the classification for refereed papers (A) is somewhat ambiguous at each research division or center.

Total numbers of the papers are as follows;

- (A) refereed papers 1137, (previous review 619)
- (A1) 533, (previous review 283)
- (A2) 410, (previous review 243)
- (A3) 194, (previous review 93)

Average numbers of papers for one researcher are as follows;

- (A) 10.43 (previous review 5.68)
- (A1) 4.89 (previous review 2.60)
- (A2) 3.76 (previous review 2.23)
- (A3) 1.78 (previous review 0.85)

Papers of all categories have increased, in particular, papers in (A1) increased by about 30%, considering the periods of collections. This indicates that many researchers are conscious of the importance of publishing papers in refereed journals. 57% of the refereed papers (A) were written in English.

In 2001, a book, 'Handbook of Disaster Prevention' was published as a memorial publication of the Disaster Prevention Research Institute. Besides, lectures to peoples were initiated as part of the 21st Century COE (Center Of Excellence) Program. It is quite important to inform the public of recent research results to popularize knowledge of disaster mitigation.

Other contributions, such as software development, database construction, improvement of computer networks, patents, editors and reviewers of academic journals, and prizes and award-winners, are also listed in this report.

## 6.2 List of Research Contributions

### 6.2.1 Division of Integrated Management for Disaster Risk

#### (A1) Complete refereed papers (21 papers)

(papers in Japanese, 54)

- Tanaka, N., and Tatano, H: A performance evaluation method of monitoring systems for inner basin drainage under imperfect observation, *Hydrological Processes*, 14, pp.621-638, 2000.
- Haruo Hayashi, Satoshi Tanaka, Kazunori Urabe, Haruhide Yoshida, Satoshi Inoue, Hideki Shima, Nobuhisa Deki, Jun Kasagi, Takahiro Nishino, Yoshiaki Oganek and Masasuke Takashima: Digital City for Disaster Reduction -Development of Pictogram System for Disaster Management-, *Digital Cities: technologies, experiences, and future perspectives*, pp.236-245, 2000.
- Masayuki KOHIYAMA, Norihiko YAMASHITA, Tadanobu SATO, LU Hengjian, Norio MAKI, Satoshi TANAKA, and Haruo HAYASHI: Expansion of the Nishinomiya Built Environment Database -Simulation of seismic motion distribution of 1995 Hyogo-ken Nanbu Earthquake-, *Natural Hazards*, Vol. 29, pp. 501-522, 2003.
- LU Hengjian, Masayuki Kohiyama, Kei Horie, Norio Maki, Haruo Hayashi, and Satoshi Tanaka: Building Damage and Casualties after an Earthquake -Relationship between Building Damage Pattern and Casualty Determined Using Housing Damage Photographs in the 1995 Hanshin-Awaji Earthquake Disaster, *Natural Hazards*, Vol. 29, pp. 387-403, 2003.
- Kei Horie, Norio Maki, Masayuki Kohiyama, LU Hengjian, Satoshi Tanaka, Shin Hashitera, Kishie Shigekawa, and Haruo Hayashi: Process of Housing Damage Assessment -The 1995 Hanshin-Awaji Earthquake Disaster Case-, *Natural Hazards*, Vol. 29, pp. 341-370, 2003.
- Ken Sudo, Hiroyuki Kameda, and Yujiro Ogawa: Recent History of Japan's Disaster Mitigation and the Impact of IDNDR, *Natural Hazards Review*, ASCE, Vol.1, No.1, February 2000, pp.10-17, 2000.
- Z. L. Huang, W. Q. Zhu and Y. Suzuki: Stochastic veering of Strongly Nonlinear Oscillators under Combined Harmonic and White Noise Excitations, *Journal of Sound and Vibration* Vol. 238, No. 2, pp.233-256, 2000.
- Z. L. Huang, W. Q. Zhu and Y. Suzuki: Jump and Bifurcation of Duffing Oscillator under Combined Harmonic and White Noise Excitations, *Advances in Structural Dynamics*, Vol. 2, pp.1167-1174, 2000.
- W. Q. Zhu, Z. L. Huang and Y. Suzuki: Stability and Bifurcation of Duffing-van der Pol Oscillator Under Wide-Band Random excitation, *Advances in Structural Dynamics*, Vol. 2, pp.1239-1246, 2000.
- H. Li, B. Wu, L. Katafyoist, Y. Suzuki and X. S. Yuan: A Control Algorithm Based on Maximum Energy Dissipation Criterion for Semi-Active Fluid Dampers, *Advances in Structural Dynamics*, Vol. 2, pp.1333-1339, 2000.
- Zhu W.Q, Ying Z.G, Suzuki Y: Optimal nonlinear feedback control of building structures with AMD under non-white random ground acceleration excitation, *Advances in Structural Dynamics*, Elsevier Science, Amsterdam, 1429-1436, December, 2000.
- W. Q. Zhu, Z. L. Huang and Y. Suzuki: Equivalent non-linear system method for stochastically excited and dissipated partially integrable Hamiltonian systems, *International Journal of Non-Linear Mechanics*, Vol.36, Issue 5, pp.773-786, 2001.
- S. Saadat, M. Noori, H. Davoodi, Z. Hou, Y. Suzuki and A. Masuda: Using SMA tendons for vibration control of coastal structures, *Journal of Smart Material and Structures*, Vol. 10, pp.1-10, 2001.
- Zhu W.Q, Z.L. Huang and Y. Suzuki: Response and stability of strongly nonlinear oscillators under wide-band random excitation, *International Journal of Non-Linear Mechanics*, Vol. 36, Issue 8, pp.1235-1250, 2001.
- M. Yamamoto and Y. Suzuki: Practical applications of structural control systems to buildings in Japan, *Earthquake Engineering and Engineering Vibration*, Vol. 21, No. 4, 32-39, 2001.
- Sakamoto, M. and Hagihara, Y.: An Attempt to Develop a Dynamic System Model of Social Conflict, *Conflict Analysis in Systems Management*, 2001 IEEE International Conference on Systems, Man and Cybernetics Conference Proceedings, pp.1760-1766, 2001.
- M.Hatayama, H.Kubilay, S.Kakumoto, and Y.Kajitani: A Study About Implementation Process of Spatial Temporal GIS to the Local Government - A Case Study for DUZCE Municipality in TURKEY -, *The 8th International Conference on Computers in Urban Planning and Urban Management*, CD-ROM, 2003.
- Y.Kajitani, S.Kakumoto, Y.Hayashi, K.Yoshikawa, and M. Hatayama: An Analysis of Damages and Recovery Status in Duzce City after 1999 Turkey Earthquakes employing Spatial-Temporal GIS, *The 8th International Conference on Computers in Urban Planning and Urban Management*, CD-ROM, 2003.
- Sakamoto,M. and Y.Hagihara: A Model Analysis of Social Group Conflict, *Conflict Analysis in Systems Management*, SMC 2003 Conference Proceedings (2003 IEEE International Conference on Systems, Man and Cybernetics), pp.4352-4357, 2003.
- Sakamoto,M. and Hagihara,Y: A Model Analysis of the Process for Building Consensus under the Conflict Situation between

Development and Environment, ICWRER 2002  
Dresden, Vol.1, pp.514-523, 2002

Shimizu, Y. and Hagihara Y.: Reconstruction of Urban Water  
Circulation Systems by Considering Water Reuse for  
Earthquake Disaster Mitigation, ICWRER 2002  
Dresden, Vol.2, pp.124-130, 2002

## **(A2) Refreed papers (18 papers)** (papers in Japanese, 30)

Norio Okada and Hirokazu Tatano: Integrated Disaster Risk  
Management for Earthquake Disaster Risk in Japan,  
Proceedings of Workshop 2000 "Mitigation of Seismic Risk -  
Support to Recently Affected European of Seismic Risk -  
Support to Recently Affected European Countries", Joint  
Research Center, European Union, CD-ROM, 2000.

Sakakibara, H., Okada, N. and Hipel, K. W.: Modeling Public  
Conflicts over Infrastructure Renewal Using a Japanese Case  
Study, Proceedings of the IEEE International Conference on  
Systems, Man and Cybernetics, CD-ROM, 2000.

Tanimoto, K., Okada, N. and Tatano, H.: Project risk allocation  
through contingent cost allocation, Proc. of IEEE International  
Conference on System, Man, and Cybernetics, CD-ROM,  
2000.

Norio Okada, Hirokazu Tatano, Hiroaki Tsubokawa: Innovation  
Loss Estimation Methods for Disaster Mitigative Urban  
Diagnosis -A Japanese Experience, World Bank Conference  
on Innovations in Managing Catastrophic Risks: How Can  
They Help the Poor, Washington, D. C., 2001.

Hiroyuki Sakakibara, Norio Okada and Yoshio Kajitani:  
Topological Analysis on Vulnerable Spots of a City, 2001  
IEEE International Conference, pp.1264-1269, 2001.

Hirokazu Tatano, Yasuaki Shoji and Norio Okada: A Multi-  
Regional General Equilibrium Analysis Taking Account of  
Disaster Risk, 2001 IEEE International Conference, pp.1773-  
1778, 2001.

Hiroyuki Sakakibara, Norio Okada, and Hirokazu Tatano:  
Modeling the Role of a Coordinator as a Medium of  
Communication in 2-Player Conflicts, Group Decision and  
Negotiation, Vol.11, No.4, pp.311-327, 2002.

Hiroyuki Sakakibara, Norio Okada and Daisuke Nakase, The  
Application of Robustness Analysis to the Conflict with  
Incomplete Information, IEEE Trans. On Systems, Man, and  
Cybernetics, Part C, Vol.32, No.1, pp.14-23, 2002.

Hipel, K.W., N.Okada, and K.Fukuyama: The  
Internationalization of Engineering: A Tale of Two Countries.  
IEEE Trans. On Systems, Man, and Cybernetics, Part C,  
Vol.33, No.1, pp.137-148, 2002.

Jiquan Zhang, Norio Okada, Hirokazu Tatano, and Seiji  
Hayakawa: Risk Assessment and Zoning of Flood Damage  
Caused by Heavy Rainfall in Yamaguchi Prefecture, Japan, in  
Wu. et. al., (eds.) "Flood Defense 2002", Science Press, New  
York, pp.1-9, 2002.

Jiquan Zhang, Norio Okada, Hirokazu Tatano and Seiji

Hayakawa: Damage Evaluation of Agro-meteorological  
Hazards in the Maize-Growing Region of Songliao Plain,  
China: Case Study of Lishu County of Jilin Province, Natural  
Hazards, Kulvier Academic Publishers, No. 1, 1-25, 2003.

K. Horie, N. Maki, H. Hayashi, M. Kohiyama, K. Shigekawa,  
and S. Tanaka: Framework for Damage Assessment Training  
System, Proceedings of the ICOSSOR'01, CD-ROM, 2001.

N. Maki, K. Horie, H. Hayashi, and S. Tanaka: What does  
"Major Damage" of the building damage assessment by local  
government mean, Proceedings of the ICOSSOR'01, CD-  
ROM, 2001.

Wakabayashi, H., Asaoka, K., Iida, Y. and Kameda: Mode  
Choice Model with Travel Time Reliability and Commuters'  
Travel Behavior Before/After Major Public Transportation  
Service Closure, 1st International Symposium on  
Transportation Network Reliability, Extended Abstract, pp.35-  
38, 2001.

W. Q. Zhu, Z. G. Ying and Y. Suzuki: Nonlinear Stochastic  
Optimal Control of Building Structures under Earthquake  
Excitation, Proc. of Second Japan National Symposium on  
Structural Control, pp.207-214, 2000.

H. Li, B. Wu, L. Katafyoist, Y. Suzuki and X. Yuan: Control  
Algorithm Based on Maximum Energy Dissipation for Semi-  
Active Fluid Dampers, Proc. of Second Japan National  
Symposium on Structural Control, pp.71-76, 2000.

J. Miyakoshi, Y. Hayashi: Correlation of Building Damage with  
Indices of Seismic Ground Motion Intensity during the 1999  
Chi-Chi, Taiwan Earthquake, International Workshop on  
Annual Commemoration of Chi-Chi Earthquake Taipei,  
Taiwan, R.O.C., pp.337-348, 2000.

Y. Hayashi, J.Miyakoshi, M.Watanabe: Seismic Risk Evaluation  
of RC Buildings Based on Kobe Earthquake of 1995, Japan,  
Proc. of 6th International Conference on Seismic Zonation,  
pp.1263-1268, 2000.

## **(A3) Abstract refreed papers (18 papers)** (papers in Japanese, 5)

Tanimoto, K., Okada, N. and Tatano, H.: Mutual Risk Trade  
through Stochastic Cost Allocation in the Recovery Project  
from, Disaster, Proc. of Second EuroConference on Global  
Change and Catastrophe Risk Management, 2000.

Okada, N.: A New Perspective and Illustrations from Japanese  
Challenges, the first annual IIASA-DPRI Meeting on  
Integrated Disaster Risk Management, Reducing Socio-  
Economic Vulnerability, at IIASA, Laxenburg, Austria, pp.1-  
17, 2001.

Tatano, H., Shoji, Y., OKADA, N: Structure of Cities, Trade  
Patterns and Long-term Economic Impacts of Anti-Disaster  
Mitigation, A Multi-Regional General Equilibrium Analysis,  
the first annual IIASA-DPRI Meeting on Integrated Disaster  
Risk Management: Reducing Socio-Economic Vulnerability,  
at IIASA, Laxenburg, Austria, pp.13, 2001.

Norio Okada, Hiroyuki Sakakibara, 2002. Game Theory-Derived

- Policy Implications For the Yoshino River Weir Conflict in Tokushima, Japan. Proceedings of the 2002 IEEE International Conference on Systems, Man and Cybernetics, CD-ROM p. 6.
- Satoshi Iwai, and Hiroyuki Kameda: Post-event Data Collection Using Mobile GPS/GIS and Development of Seismic Evaluation Technique for Damage, Proceedings of the 12th World Conference on Earthquake Engineering, paper no. 2056, CD-ROM, 2000.
- Masato Nakajima, Hiroyuki Kameda, Yutaka Ishikawa, and Toshihiko Okumura: Seismic Hazard Mapping Using Contribution Factors of Seismic Sources, Proceedings of the 12th World Conference on Earthquake Engineering, paper no. 1905, CD-ROM, 2000.
- M. Hatayama, S. Kakumoto and H. Kameda: Development of Dynamic Management Spatial-temporal Information System and Application for Census Data - Toward Asian Spatial Temporal GIS (ST-GIS) (2)-, Proceedings of Dynamic and Multi-Dimensional GIS, IAPRS, Vol.34, Part2W2, pp.123-127, 2001.
- LU Hengjian, MAKI Norio, TANAKA Satoshi, and HAYASHI Haruo: Human Casualty Estimation Due to Urban Earthquake, Proceedings of the 12th World Conference on Earthquake Engineering, CD-ROM, 2001.
- SHIGEKAWA Kishie, TANAKA Satoshi, HAYASHI Haruo, and AONO Fumie: Ethnographic Analysis of Individual Behavior Following the Hanshin-Awaji Earthquake Disaster, Proceedings of the 12th World Conference on Earthquake Engineering, CD-ROM, 2001.
- TANAKA Satoshi, NOJIMA Nobuoto, and KAMEDA Hiroyuki: Evaluation of Seismic Fragility for Highway Transportation Systems, Proceedings of the 12th World Conference on Earthquake Engineering, CD-ROM, 2001.
- URABE Kazunori, YOSHIDA Haruhide, INOUE Satoshi, SHIMA Hideki, DEKI Nobuhisa, HAYASHI Haruo, TANAKA Satoshi and OOGANE Yoshiaki: Development of A Pictogram System for Earthquake and Tsunami Disaster Reduction, Proceedings of the 12th World Conference on Earthquake Engineering, CD-ROM, 2001.
- K. Katagihara, Y. Suzuki, M. Goto, A. Kitahara and Y. Iwasa: A Study on Dynamic Performance and Seismic Strengthening of the Traditional Wooden Structure in Japan, IABSE Conference on Innovative Wooden Structures and Bridges, Lahti, Finland 29-31 August, 2001.
- Li, H, Y. Suzuki, J-Y. Peng and S. Li: DAMAGE CONTROL OF HYSTERETIC STRUCTURES BY USING INSTANTANEOUS OPTIMAL CONTROL ALGORITHM WITH A SPECIAL WEIGHING MATRIX, Proceedings of the Eleventh Japan Earthquake Engineering Symposium, pp. 1743-1548, November 2002.
- Hou, Z., Suzuki, Y., and Shimizu, H.: Damage Detection of a Wooden House During Shaking Table Testing Using Wavelet-based Approach, Proceedings of the Third World Conference on Structural Control, April 4-11. 2002, at Como, Italy, Vol. II, pp. 1121-1127.
- K.Tamura, K. Watanabe, and Y. Hayashi: Study on Rocking Response of Slender Building, Structural Engineers World Congress, T2-7-a-4, 2002.10.
- Pareek, Y.Hayashi, S. Sawada: Building Damage in Gandhidham during the Bhuj Earthquake of 2001, Proc. of 12th Symposium Earthquake Engineering, pp. 737-744. 2002.12.
- H. Murakami, R. Mitsugi, and Y. Hayashi: Proposal for Sustainable Restoration of Damaged Dwellings –What we learn from the 2000 Western Tottori Earthquake, 7th US-Japan Workshop on Urban Earthquake Hazard Reduction, 2003.
- Morino,M.Sakamoto,M.,Suzuki,S.,Yamagiwa,J.,Hagihara,Y.,Naito,M: Food Plant Richness in the Favorite Habitat for Macaca Fuscata Yakui in the Yakushima Island,Japan, Society for Conservation Biology 16th Annual Meeting 2002
- (B) Research reviews**  
(reviews in Japanese, 27)
- (C) Books (4 books)**  
(books in Japanese, 28)
- Okada, N. (Chapt. 8 , Developing an indicator of a community's disaster risk awareness), Bogardi, Janos J. and Kundzewicz Zwiwniew W., et. al. eds.: Risk, Reliability, Uncertainty, and Robustness of Water Resources Systems, Cambridge Univ. Press, pp.62-69, 2001.
- Norio Okada, Developing an Indicator of a Community's Disaster Risk Awareness: in "Risk, Reliability, Uncertainty, and Robustness of Water Resources Systems", ed. by J.J. Bogardi and W. Kunzewicz, Cambridge University Press, 2002.
- Suzuki Y.(ed.): Proceedings of Symposium in Honor of Takuji Kobori, Earthquake Engineering in the Next Millennium, Steering Committee of Symposium in Honor of Takuji Kobori, p.143, 2000.
- K. Kawashima, B. F. Spencer, Jr. and Y. Suzuki (Editors): Proceedings of US-Japan Workshop on Smart Structures for Improved Seismic Performance in Urban Regions, August 14, 2001, Seattle, WA, USA., p.248, 2001.
- (D) Research papers in bulletins and reports (4 papers)**  
(papers in Japanese, 29)
- T. Araki and Y. Suzuki: Seismic damage and reliability analysis of uncertain hysteretic structures based on stochastic differential equations, Proceedings of U.S.-Japan Cooperative Research in Urban Earthquake Disaster Mitigation and Third Grantees Meeting, 15-16 August 2001, University of Washington, Seattle, WA, USA, pp.164-171, 2001.
- Y. Suzuki, K. Katagihara, Y. Iwasa, K. Takata, M. Yamamoto, M. Goto and A. Kitahara: Dynamic Characteristics and Seismic Performance of Traditional Wooden Structure by Shaking Table Tests, Proceedings of U.S.-Japan Cooperative Research

in Urban Earthquake Disaster Mitigation and Third Grantees Meeting, 15-16 August 2001, University of Washington, Seattle, WA, USA, pp.328-337, 2001.

- S. Sawada, F. Uehan, Y. Hayashi, H. Arai: Ground Condition Estimated from Microtremor Observations, A Comprehensive Survey of the 26 January 2001 Earthquake (Mw 7.7) in the State of Gujarat, India, Research Report by the Research Team Supported by the Grant-in-Aid for Specially Promoted Research Provided by the Japanese Ministry of Education, Culture, Sports, Science and Technology in the fiscal year of 2000 (Grant No. 12800019), pp.71-74, 2001.
- Y. Hayashi, S. Sawada, S. Pareek, Y. Hisada: Damage in Gandhidham, A Comprehensive Survey of the 26 January 2001 Earthquake (Mw 7.7) in the State of Gujarat, India, Research Report by the Research Team Supported by the Grant-in-Aid for Specially Promoted Research Provided by the Japanese Ministry of Education, Culture, Sports, Science and Technology in the fiscal year of 2000 (Grant No. 12800019), pp.84-88, 2001.

#### **(E) Textbooks for lectures (6 textbooks)** (textbooks in Japanese, 16)

- Norio Okada: Kasology -A New Research Perspective for Sustainable Mountainous Community Management, Vienna , pp.69-85 , 2000.
- Hiroyuki Kameda: Engineering Management of Lifeline Systems under Earthquake Risk, " State-of-the-Art Paper, Proceedings of the 12th World Conference on Earthquake Engineering, paper no. 2827, CD-ROM, 2000.
- Hirokazu Tatano and Norio Okada: A Simulation-Based Optimization Approach for Integrated Flood Risk Management, Paper Presented at JSPS-VCC Seminar on Water Environmental Planning, International Islamic university, pp.7-1 - 7-11, 2002.
- Satoshi Tsuchiya, Hirokazu Tatano and Norio Okada: Economic Losses Caused by Traffic Regulation with Tokai Earthquake Warning Declaration, Proceedings of The 2003 Joint Seminar and Stakeholders Symposium on Urban Disaster Management and Implementation, CBTDC, Beijing, China, pp. 132-139, 2003.
- Yoshio Kajitani, Norio Okada, Hirokazu Tatano and Hitomi Motohisa: Development of Search and Rescue Simulator Based Spatial-Temporal Information System, Proceedings of The 2003 Joint Seminar and Stakeholders Symposium on Urban Disaster Management and Implementation, CBTDC, Beijing, China, pp. 155-160, 2003.
- Hirokazu Tatano, Toshitsura Honma and Norio Okada: Economic Restoration Path after a Large Catastrophic Event: Heterogeneous Damages and their Effects on Economic Growth, Proceedings of The 2003 Joint Seminar and Stakeholders Symposium on Urban Disaster Management and Implementation, CBTDC, Beijing, China, pp. 209-214, 2003.

#### **(F) Articles in newspapers and magazines** (articles in Japanese, 6)

#### **(G1) Papers presented at research meetings** (37 papers)

(papers in Japanese, 117)

- Okada, N., Tatano, H. and Kajitani, Y.: Evaluation of Human Behavior Related Seismic Disaster Risks by Niche Analysis, Proc. of 2000 Joint Seminar on Urban Disaster Management, pp.26-27, Beijing, China, 2000.
- Tatano, H., Isobe, W. and Okada, N.: Economic Evaluation of Seismic Risks, Proc. of 2000 Joint Seminar on Urban Disaster Management, pp.36-39, Beijing, China, 2000.
- Okada, N.: Disaster Mitigative Urban Diagnosis(DiMUDnosis) Viewed as Process of Risk Management, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, Beijing, China, pp.2-5, 2000.
- Kakumoto, S., Hatayama, M., Okada, N.: Development of Spatial-temporal GIS for Urban Diagnosis and Disaster Prevention, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, Beijing, China, pp.17-19, 2000.
- Hirokazu Tatano, Yasuaki Shoji, Norio Okada: Long-Term and Short-Term Effects of Disaster Risk Upon Regional Economy: A Multi-Regional General Equilibrium Approach Taking Account of Capital Damages Caused by Natural Disaster, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, Beijing, China, pp.27-32, 2000.
- Yoshio Kajitani, Norio Okada, Hirokazu Tatano: Interpretation of Niche Analysis by Spatial Statistics and Its Application to Evaluation of Human Behavior Related Seismic Risks, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, Beijing, China, pp.47-49, 2000.
- Yoshio Kajitani, Hiroyuki Sakakibara, Norio Okada, Ye Yaoxian: Concentration/Dispersion Analysis of Metropolitan Trunk Road Network Systems -Japan-China Comparative Study under a Near-Field Earthquake Disaster, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, Beijing, China, pp.50-52, 2000.
- Ye Yaoxian, Norio Okada: Improving Management of Urban Earthquake Disaster Risks, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, Beijing, China, pp.63-68, 2000.
- Yoshio Kajitani, Norio Okada and Hirokazu Tatano: Spatial-Temporal Statistical Analysis of Human Behavior Related Risks by Use of DiMSIS, Proceedings of Japan-US Workshop on Disaster Risk Management for Urban Infrastructure Systems, 2001.
- Norio Okada, Yoshio Kajitani, Hiroyuki Sakakibara: Modeling, Urban Diagnosis and Policy Analysis for Integrated Disaster Risk Management. Illustrations by Use of DiMSIS, Niche Analysis and Topological Index, Proceedings of Japan-US

- Workshop on Disaster Risk Management for Urban Infrastructure Systems, pp.15-21, 2001.
- Norio Okada: Chizu's "Zero-to-one projects" and Himawari Systems -What do they mean to planning, Kasology International Conference, Chizu town, Tottori, May, 2001.
- Norio Okada: Modeling, Urban Diagnosis and Policy Analysis for Integrated Disaster Risk Management - Illustrations by Use of DiMSIS, Niche Analysis and Topological Index, EQTAP Annual meeting, Seattle, August, 2001.
- Hirokazu Tatano, Yasuaki Shoji and Norio Okada: Long-Term Effect of Disaster Mitigation Investment upon Regional Economy: A Multi-Regional General Equilibrium Approach, Proceedings of Japan-US Workshop on Disaster Risk Management for Urban Infrastructure Systems, pp.269-277, 2001.
- Hipel. K. H., Okada N., Fukuyama K., 2002. International Exchange Programs in Engineering between the University of Waterloo in Canada and Tottori and Kyoto Universities in Japan. Technical Report Dept of Systems Design Engineering University, University of Waterloo,1-24
- Kajitani.Y., Okada. N., Tatano. H., 2002. Statistical Analysis of Spatial Temporal Distributions of Human Activities after an Earthquake Disaster. Second Annual IASA-DPRI Meeting for Integrated Disaster Risk Management.
- Hori. T., Ji-Quan Zhang., Tatano. H., Okada. N., Ikebuchi.S., 2002. Micro-zonation-based Flood Risk Assessment in Urbanized Floodplain, Second Annual IASA-DPRI Meeting for Integrated Disaster Risk Management.
- Yoshio Kajitani, Norio Okada, Hirokazu Tatano, 2002. Spatial-Temporal Analysis of Human Community Viability by Niche Indices- A case study of Disaster Affected Region Proceedings of Third Joint Seminar on Urban Disaster Management pp30-35.
- Ye Yaoxian, Norio Okada,2002. Achievements of Joint Research on Management of Urban Disaster Risks for the Phase of the EQTAP Project. Proceedings of Third Joint Seminar On Urban Disaster Management,pp78-82.
- Toshitsura Honma, Hirokazu Tatano, Norio Okada, 2002. Effects of Heterogeneous Damages in Capital A Disaster Upon Recovery Process. Proceedings of Third Joint Seminar On Urban Disaster Management, pp17-pp20.
- Shigeru Kakumoto, Michinori Hatayama, Hiroyuki Kameda, Yutaka Ohsawa, and Yasumitsu Oda: Advanced GIS Applications for Earthquake Disaster Mitigation -Development of Spatial-Temporal Information Systems-, Proceedings of the National Forum on Advanced GIS Applications 2000, CD-ROM, 2000.
- Hiroyuki Kameda: EQTAP- A New Challenge for Realizing Safety and Sustainability against Earthquake and Tsunami Disasters in Asia-Pacific Regions - Steps towards the EQTAP Master Plan - , General Report, Proceedings of the Third Multi-Lateral Workshop on Development of Earthquake and Tsunami Disaster Mitigation Technologies and Their Integration for the Asia-Pacific Region, pp.15-24, 2000.
- Masanobu Shinozuka, Nobuhiko Shiraki, Hiroyuki Kameda: Performance of Highway Network Systems under Earthquake Damage, Proceedings of the Second International Workshop on Mitigation of Seismic Effects on Transportation Structures, pp.303-314, 2000.
- M. Hatayama, S. Kakumoto and H. Kameda: Development of Dynamic Management Spatial-temporal Information System - Application for Temporal Analysis of Census Data, GIS2001 Conference Proceedings, CD-ROM, 2001.
- Satoshi TANAKA and Hiroyuki KAMEDA: Development of the Fragility Functions for Reconstruction of the Highway Structure, Proceedings of Japan-US Workshop on Disaster Risk Management for Urban Infrastructure Systems, pp.83-86, 2001.
- Hagihara, K., Asahi, C. and Y. Hagihara: Evaluating Changes in Urban Environmental Risk: the Case of Municipal Water Use, preprint for Kobe Conference on Theory and Application of Environmental Valuation, 2000.
- Hagihara, Y., Shimizu, Y., Sakamoto, K: Restructuring of Water Circulation System for Earthquake Disaster Mitigation and Creation of Waterfront in Urban Area, Proceedings of Second Joint Seminar on Urban Disaster Management, CBTDC, pp.20-25, 2000.
- Hagihara, Y., Zhang, S. P., Shimizu, Y. and K. Sakamoto: Earthquake Disaster Mitigation of Water Supply Networks, Proceedings of 2000 Joint Seminar on Urban Disaster Management, CBTDC, pp.10-17, 2000.
- Shimizu, Y., Hagihara, Y. and Akiyama, T: Risk Assessment of Water Supply for Disaster Considering Water Cycle Use, Preprint for 6th World Congress of the RSAI, 2000.
- Kamiya, D.and Hagihara, Y: The Relation between User's Mental Factors and the Characteristics of Environmental Space considering with Earthquake Disaster Risk, Preprint for 17<sup>th</sup> Pacific(Portland) Conference, Regional Science Association International, 2001.
- Morino,M.Sakamoto,M.,Suzuki,S.,Yamagiwa,J.,Hagihara,Y.,Naito,M: Food Plant Richness in the Favorite Habitat for Macaca Fuscata Yakui in the Yakushima Island,Japan, Society for Conservation Biology 16th Annual Meeting 2002
- Morino, M., Suzuki, S., Yamagiwa, J., Hagihara, Y., Naito, M: Evaluation of the Food Plant Diversity for the Yakushima Macaques, Global Change Open Science Conference, 2001.
- H. Murakami, Y. Suzuki, Y. Saito, C. Nojima, Y. Hayashi, and N. Kojima: Seismic Risk Assessment of Traditional Timber Frame Dwellings -A Case Study of Historical Architecture District in Hagi City, Japan-, <http://idrm03.dpri.kyoto-u.ac.jp/proceedings.htm>, July, 2003.
- Y. Hayashi, Y. Suzuki: Seismic Risk Evaluation of Existing RC Buildings based on 1995 Kobe Earthquake, Proc. of Second Joint Seminar on Urban Disaster Management, pp.57-62, 2000.12.
- Y. Hayashi, Y. Suzuki, and T. Morii: Ground Motion

- Characteristics based on Seismic Observation in Kyoto, Japan, Proc. of third Joint Seminar on Urban Disaster Management, pp.36-39, 2002.3.
- Y. Hayashi, H. Murakami, and T. Morii: Damage and Restoration of Houses in the 2000 Western Tottori Prefecture Earthquake, Japan, Proc. of the 20003 Joint Seminar and Stakeholders Symposium on Urban Disaster Management and Implementation, pp.161-164, 2003.3.
- Y. Hayashi: Comparison of Wooden House Damage Between 1995 Kobe Earthquake and 2000 Tottori Earthquake of Japan, The Third DPRI-IIASA International Symposium on Integrated Disaster Risk Management Coping with Regional Vulnerability, [http: //idrm03.dpri.kyoto-u.ac.jp/proceedings.htm](http://idrm03.dpri.kyoto-u.ac.jp/proceedings.htm), July, 2003.
- H. Murakami, Y. Suzuki, Y. Saito, C. Nojima, Y. Hayashi, and N. Kojima: Seismic Risk Assessment of Traditional Timber Frame Dwellings -A Case Study of Historical Architecture District in Hagi City, Japan-, [http: //idrm03.dpri.kyoto-u.ac.jp/proceedings.htm](http://idrm03.dpri.kyoto-u.ac.jp/proceedings.htm), July, 2003.

**(G2) Non-refreed papers**

(papers in Japanese , 6)

## 6.2.2 Division of Earthquake Disaster Prevention

### (A1) Complete refereed papers (45 papers) (papers in Japanese, 35)

- Bouin, M.-P., M. Cocco, G. Cultrera, H. Sekiguchi, and K. Irikura: The rupture process of the  $M_J=7.2$  1995 Hyogo-ken Nanbu (Kobe) earthquake deduced from S-wave polarization analysis, *Geophys. J. Int.*, 143, pp.521-544, 2000.
- Fukushima, Y., K. Irikura, T. Uetake, and H. Matsumoto: Characteristics of observed peak amplitude for strong ground motion from the 1995 Hyogoken Nanbu (Kobe) earthquake, *Bull. Seism. Soc. Am.*, 90, pp.545-566, 2000.
- Moya, A., J. Aguirre, and K. Irikura: Inversion of source parameters and site effects from strong ground motion records using genetic algorithms, *Bull. Seism. Soc. Am.*, 90, pp.977-993, 2000.
- Petukhin, A. and K. Irikura: A method for separation of source and site effects and the apparent Q structure from strong motion data, *Geophys. Res. Lett.*, 27, pp.3429-3432, 2000.
- Pitarka, A., P. Somerville, Y. Fukushima, T. Uetake, and K. Irikura: Simulation of near-fault strong ground motion using hybrid Green's functions, *Bull. Seism. Soc. Am.*, 90, pp.566-587, 2000.
- Pulido, N. and K. Irikura: Estimation of dynamic rupture parameters from the radiated seismic energy and apparent stress, *Geophys. Res. Lett.*, 27, pp.3429-3432, 2000.
- Sekiguchi, H., K. Irikura, and T. Iwata: Fault geometry at the rupture termination of the 1995 Hyogo-ken Nanbu earthquake, *Bull. Seism. Soc. Am.*, 90, pp.117-133, 2000.
- Dalguer, L. A., K. Irikura, J. D. Riera, and H. C. Chiu: The importance of the dynamic source effects on strong ground motion during the 1999 Chi-Chi, Taiwan, earthquake: brief interpretation of the damage distribution on buildings, *Bull. Seism. Soc. Am.*, 91, pp.1112-1127, 2001.
- Dalguer, L. A., K. Irikura, J. D. Riera, and H. C. Chiu: Fault dynamic rupture simulation of the hypocenter area of the thrust fault of the 1999 Chi-Chi (Taiwan) earthquake, *Geophys. Res. Lett.*, 28, pp.1327-1330, 2001.
- Miyake, H., T. Iwata, and K. Irikura: Estimation of rupture propagation direction and strong motion generation area from azimuth and distance dependence of source amplitude spectra, *Geophys. Res. Lett.*, 28, pp.2727-2730, 2001.
- Sanchez-Sesma, F. J., R. Madariaga, and K. Irikura: An approximate elastic two-dimensional Green's function for a constant-gradient medium, *Geophys. J. Int.*, 146, pp.237-248, 2001.
- Satoh, T., H. Kawase, T. Iwata, S. Higashi, T. Sato, K. Irikura, and H.-C. Huang: S-wave velocity structure of the Taichung basin, Taiwan, estimated from array and single-station records of microtremors, *Bull. Seism. Soc. Am.*, 91, pp.1267-1282, 2001.
- Fujiwara, T., Fukumoto, K., Matsunami, K. and Morii, T.: Estimation of Seismic Hazard in Hikone City Based on Observation Network Data from Shiga Prefecture, Japan, *J. Natural Disaster Science*, Vol.22, No.2, pp.97-103, 2000.
- Sekiguchi, H., K. Irikura, and T. Iwata: Fault geometry at the rupture termination of the 1995 Hyogo-ken Nanbu earthquake, *Bull. Seism. Soc. Am.*, pp.117-133, 2000.
- Satoh, T., H. Kawase, T. Iwata, S. Higashi, T. Sato, K. Irikura, and H.-C. Huang: S-wave velocity structure of the Taichung basin, Taiwan, estimated from array and single-station records of microtremors, *Bull. Seism. Soc. Am.*, pp.1267-1282, 2001.
- Miyake, H., T. Iwata, and K. Irikura: Estimation of rupture propagation direction and strong motion generation area from azimuth and distance dependence of source amplitude spectra, *Geophys. Res. Lett.*, pp.2727-2730, 2001.
- Sekiguchi, H. and T. Iwata: Rupture process of the 1999 Kocaeli, Turkey, earthquake using strong motion waveforms, *Bull. Seism. Soc. Am.*, pp.300-312, 2002.
- Nakashima, M., Ogawa, K., and Inoue, K.: Generic Frame model for Simulation of Earthquake Responses of Steel Moment Frames, *Journal of Earthquake Engineering and Structural Dynamics*, pp.671-692, 2002.
- Nakashima, M.: Development, Potential, and Limitations of Real-Time Online (Pseudodynamic) Test, *Philosophical Transactions of the Royal Society*, pp.1851-1867, 2001.
- Nakashima, M., Roeder, C. W., and Maruoka, Y.: Steel Moment Frames for Earthquakes in the United States and Japan, *Journal of Structural Engineering*, ASCE, pp.861-868, 2000.
- Clark, W. P., Aiken, I. D., Nakashima, M., M. Miyazaki, and M. Midorikawa: The 1995 Hyogoken-Nanbu Earthquake as a Trigger for the Implementation of New Seismic Design Technologies in Japan, *Lessons Learned Over Time, Learning From Earthquake Series*, Earthquake Engineering Research Institute, pp.79-109, 2000.
- Matsunami, K., T. Morii, Y. Okamoto, and T. Fujiwara, Local site amplification and damages to wooden houses in Shimoenoki, Tottori, Japan, by the 2000 western Tottori earthquake, *Earth Planets Space*, Vol. 54, pp. 861-870, 2002.
- Matsunami, K., W. Zhang, K. Irikura, and L. Xie, Estimation of seismic response in the Tangshan area, China, using underground records, *Bulletin of the Seismological Society of America*, Vol. 93, No. 3, pp. 1065-1078, 2003.
- Asano, K, T. Iwata, and K. Irikura, Source characteristics of shallow intraslab earthquakes derived from strong motion simulations, *Earth Planetary Science*, 55, e5-e8. 2003.
- Zhang, W., T. Iwata, K. Irikura, H. Sekiguchi, and M. Bouchon, Heterogeneous distribution of the dynamic source parameters of the 1999 Chi-Chi, Taiwan earthquake, *J. Geophys. Res.*, 108, 2232-2245, 2003.
- Sekiguchi, H., K. Irikura, and T. Iwata, Source inversion for estimating continuous slip distribution on the fault – Introduction of Green's functions convolved with a correction



- function to give moving dislocation effects in subfaults, *Geophys. J. Int.* 150, 377-391, 2002.
- Sekiguchi, H. and T. Iwata, Rupture process of the 1999 Kocaeli, Turkey, earthquake using strong motion waveforms, *Bull. Seism. Soc. Am.*, 92, 300-312, 2002.
- Jun Yang, Tadanobu Sato, Xiang-Song Li: Nonlinear site effects on strong ground motion at a reclaimed island, *Canadian Geotechnical Journal*, Vol.37, No.1, pp.26 ~ pp.39, 2000.2
- Victor A. Gotlib, Tadanobu Sato, Abraham I. Beltzer: Neural Computations of Effective Response of Random Composites, *International Journal of Solids and Structures*, Vol.37, No., pp.4527-4538, 2000.5
- Jun Yang, Tadanobu Sato: Computation of Individual Contributions of Two Compression Waves in Vibration of Water-Saturated Soils, *Computers and Geotechnics*, Vol., No.27, pp.79-100, 2000.5
- Jun Yang, Tadanobu Sato: Influence of Water Saturation on Horizontal and Vertical Motion at a Porous Soil Interface Induced by Incident SV Wave, *Soil Dynamics and Earthquake Engineering*, No.19, pp.339-346, 2000.5
- Abraham I. Beltzer, Victor A. Gotlib, Tadanobu Sato: A Survey of neural computing of Effective properties of Random Composites, *Advances on neural Networks and Applications, Artificial Intelligence Series, A series of Reference books and Textbooks*, pp.421-426, 2001.
- Tadanobu Sato, Yoshitaka Murono, Hai-Bo Wang, Akihiko Nishimura: Design Spectra and Phase spectrum Modeling to Simulate Design earthquake motions: A Case study through Design Standards of Railway Facilities in Japan, *Journal of Natural Disaster Science*, Vol.23, No.2, pp.89-100, 2001.
- Victor A. Gotlib, Tadanobu Sato, Abraham I. Beltzer: Neural Computing of Effective Properties of Random Composite Materials, *Computers and Structures*, Vol., No.79, pp.1-6, 2001.
- J. Yang, T. Sato: Analytical study of Saturation Effects on Seismic Vertical Amplification of a Soil Layer, *Geotechnique*, Vol.51, No.2, pp.161-165, 2001.7
- J. Yang, T. Sato, S. Savidis, X.S. Li: Horizontal and vertical components of earthquake ground motions at liquefiable sites, *Soil Dynamics and Earthquake Engineering*, No.22, pp.229-240, 2002.
- Ikumasa YOSHIDA, Tadanobu SATO: Health Monitoring Algorithm by the Monte Carlo Filter Based on Non-Gaussian Noise, *Journal of Natural Disaster Science*, Vol.24, No.2, pp.101-107, 2002.
- Tadanobu SATO, Yoshitaka MURONO, Akihiko NISHIMURA: Phase Spectrum Modeling to Simulate Design Earthquake Motion, *Journal of Natural Disaster Science*, Vol.24, No.2, pp.91-100, 2002.
- Abraham I. Beltzer, Tadanobu Sato: Probability distribution of wave velocity in heterogeneous media due to random phase configuration, *Elsevier, Wave Motion*, science direct, 2003.3
- Masayuki Kohiyama, Norihiko Yamashita, Tadanobu Sato, Lu Hengjian, Norio Maki, Satoshi Tanaka: Expansion of the Nishinomiya Built Environment Database-Simulation of seismic ground motion distribution and correlation with damage in the 1995 Hyogo-ken Nanbu Earthquake, *Natural Hazards*, No.29, pp.501-522, 2003.
- Yuan Di, Tadanobu Sato: Liquefaction analysis of saturated soils taking into account variation in porosity and permeability with large deformation, *Computers and Geotechnics*, Vol.30, No., pp.623-635, 2003.
- H. Morikawa, S. Sawada and K. Kawasaki: Analytical Representation of Phase Characteristics for Source Time Function Modeled by Stochastic Impulse Train, *Soil Dynamics and Earthquake Engineering*, Vol.22, pp.821-828, 2002.
- M. Komazawa, H. Morikawa, H. Nakamura, J. Akamatsu, K. Nishimura and S. Sawada, A. Erken and A. Onalp: Bedrock Structure in Adapazari, Turkey-A Possible Cause of Severe Damage by the 1999 Kocaeli Earthquake-, *Soil Dynamics and Earthquake Engineering*, Vol.22, pp.829-836, 2002.
- Liu, D., Nakashima, M., and Kanao, I., "Behavior to Complete Failure of Steel Beams Subjected to Cyclic Loading," *Journal of Engineering Structures*, Vol.25, pp.525-535., March 2003
- Nakashima, M., Kanao, I., and Liu D., "Lateral Instability and Lateral Bracing of Steel Beams Subjected to Cyclic Loading," *Journal of Structural Engineering*, ASCE, Vol.128, No.10, pp.1308-1316, October 2002.

**(A2) Refreed papers (20 papers)**  
(papers in Japanese, 30)

- Irikura, K.: Prediction of strong motions from future earthquakes caused by active faults -case of the Osaka basin-, *Proc. 12th World Conference Earthquake Engineering (CD-ROM)*, 2000.
- Irikura, K.: Recipe for estimating strong ground motions from active fault earthquakes, *Seismotectonics in Convergent Plate Boundary*, Eds. Y. Fujinawa and A. Yoshida, Terra Scientific Publishing Company (TERRAPUB), Tokyo, pp.45-55, 2002
- Matsunami, K., Nakamura, M., Seto, N.: Seismic attenuation and source parameters from shallow earthquakes in the crust of Wakayama, southwest Japan, *Proceedings of the 8th International Symposium on Natural and Technological Hazards*, pp.104-105, 2000.
- Matsunami, K., Wenbo Zhang: A comparison of site response estimation by different methods using strong motion records in Tangshan, China, *Proceedings of the 8th International Symposium on Natural and Technological Hazards*, pp.106-107, 2000.
- Matsunami, K., Fujiwara, T., Fukumoto, K., Kobayashi, M., and Morii, T.: Estimation of site response and sediment thickness using records from seismic observation network for strong motion in Shiga, Japan, *Proceedings of the 8th International Symposium on Natural and Technological Hazards*, pp.108-109, 2000.
- Fujiwara, T., Fukumoto, K., Matsunami, K., Kobayashi, M., and Morii, T.: Soil condition and seismic characteristics in Shiga

- prefecture, Japan, Proceedings of the 8th International Symposium on Natural and Technological Hazards, pp.114-115, 2000.
- S. Morooka, H. Kunieda: Modal Coupling of Spherical Domes in Anti-Symmetric State under Harmonic Excitations, Proc. Sixth Asian Pacific Conference on Shell and Spatial Structures, Seoul, pp.41-48, 2000.
- S. Morooka, H. Kunieda: Vibration of a Spherical Shell in the Circumferential Direction, International Symposium on Theory, Design and Realization of Shell and Spatial Structures, Nagoya, TP020 (CD-ROM & Extended Abstract), 2001.
- M.Turugi, S.Sawada, K.Irikura and K.Toki: Distribution of Site Amplification Factors on Osaka Plain Based on Questionnaire Survey of the 1995 Hyogo-ken Nambu Earthquake, Proceedings of 6th International Conference on Seismic Zonation, Vol.I, pp.259-264, 2000.
- Tadanobu SATO, Tomohiro KAWANISHI: Interpolation of Earthquake Motions using Observed Phase Spectra, Proceedings of Sixth International Conference on Seismic Zonation, Vol.1, pp.327-332, 2000.12
- Jun Yang, Tadanobu SATO: Saturation Effects of Soils on Free-Surface Motion due to Incident SV-Waves, Proceedings of Sixth International Conference on Seismic Zonation, Vol.1, pp.459-464, 2000.12
- Yoshitaka MURONO, Tadanobu SATO, Akihiko NISHIMURA: Design Earthquake Motions use in Japanese Railway Facilities, Proceedings of Sixth International Conference on Seismic Zonation, Vol.2, pp.699-704, 2000.12
- Yuan Di, Tadanobu Sato: Large Deformation dynamic Analysis of Porous Medium Using FEM-FDM Coupled Method, Proceeding of the International Conference on Computational Engineering & Science 19-25 August 2001 Puerto Vallarta Mexico, 2001.
- T.Sato, Y.Murono: Simulation of Earthquake Motions Based on Phase Information, 12th European Conference on earthquake Engineering CD-ROM487, 2002.
- Y.Murono, T.Sato, M.Murakami: Modeling of Phase Spectra for Near-Fault Earthquake Motions, 12th European Conference on earthquake Engineering CD-ROM279, 2002.
- Jun Yang, Tadanobu Sato, Stravros Savidis: Effects of Saturation on Earthquake Response of Liquefiable Ground, 12th European Conference on earthquake Engineering CD-ROM133, 2002.
- Ikumasa Yoshida, Tadanobu Sato: Exclusive non-Gaussian Process Noise for Damage Detection Using Monte Carlo Filter, Proceeding of the Third World Conference on Structural Control, Vol.2, No., pp.213-218, 2003.
- J. Yang, S. Savidis, T. Sato, X.S.Li: Influence of Vertical Acceleration on Soil Liquefaction: New Findings and Implications, Proceedings of the Soil and Rock America 2003, 12th Pan-American Conference on Soil Mechanics and Geotechnical Engineering, Vol.1, No., pp.963-968, 2003.6
- T. Sato, Y. Muro, M. Murakami: Modeling of Phase Spectra for Simulation of Near-Fault Design Earthquake, Advancing Mitigation Technologies and Disaster Response for Lifeline Systems, Technical Council on Lifeline Earthquake Engineering Monograph, No.25, pp.769-778, 2003.8
- Sanjay Pareek, Yasuhiro Hayashi and Sumio Sawada: Building Damage in Gandhidham during the Bhuj Earthquake of 2001, Earthquake Engineering 12SEE-2002, pp.737-744, 2002.

**(A3) Abstract refereed papers (21 papers)**  
(abstracts in Japanese, 17)

- Miyake, H., T. Iwata, and K. Irikura: Source characterization of inland earthquakes for near source ground motions, Proc. 6th Int. Conf. Seismic Zonation, CDR0M.II-85, 2000.
- Kawase, H., T. Satoh, T. Sato and T. Iwata: Exploration of Underground Structures in the Taichung Basin Using Microtremors, Proc. International Workshop on Annual Commemoration of Chi-Chi earthquake, CDR0M, II-85, 2000.
- Tsai, K. C., Chen, C. H., Engelhardt, M. D. and Nakashima, M.: Cyclic Behavior of Link-to-Box Column Connections in Eccentrically Braced Frames, Proceedings of the First International Conference on Structural Stability and Dynamics, pp.599-604, 2000.
- Nakashima, M.: Quality Assurance for Welding of Japanese Welded Beam-to-Column Connections, Proceedings of the Second International Conference on Behavior of Steel Structures in Seismic Areas (STESSA'2000), pp.223-230, 2000
- Suita, K., Nakashima, M., and Engelhardt, M. D.: Comparison of Seismic Capacity between Post-Northridge and Post-Kobe Beam-to-Column Connections, Proceedings of the Second International Conference on Behavior of Steel Structures in Seismic Areas (STESSA'2000), pp.271-278, 2000.
- Nakashima, M.: Unresolved Issues on Earthquake Resistance of Steel Building Structures, Proceedings of the Seventh International Symposium of the Japan Welding Society, pp.1-6, 2001.
- Nakashima, M: Earthquake Responses of Steel Moment Frames Involving Beam Fractures, Proceedings of the First International Conference on Structural Stability and Dynamics, Taipei, pp95-104, 2000.
- Nakashima, M., Matsumiya, T., and Asano, K.: Comparison in Earthquake Responses of Steel Moment Frames Subjected to Near-Fault Strong Motions Recorded in Japan, Taiwan, and the U.S, International Workshop on Annual Commemoration of Chi-Chi Earthquake, pp.112-123, 2000.
- Suita, K., Onikawa, K., Mitani, Y., Yamada S. and Arashiyama M.: Investigation and Analysis of Damage to Expressway Tollgate Structures Caused by the Hyogoken-Nanbu Earthquake, The third International Conference on Behaviour of steel structures in seismic areas, STESSA 2000, pp.345-352, 2000.
- H.Morikawa, S.Sawada and K.Kawasaki: Analytical Representation of Phase Characteristics for Source Time

- Function Modeled by Stochastic Impulse Train, Extended Abstracts of 10th Int'l Conference on Soil Dynamics and Earthquake Engineering, pp.139, 2001.
- S.Sawada, H.Morikawa and K.Kataoka: Analysis of Phase Characteristics of Path Effects on Seismic Ground Motion Based on Ray Theory, Extended Abstracts of 10th Int'l Conference on Soil Dynamics and Earthquake Engineering, pp.178, 2001.
- M.Komazawa, H.Morikawa, H.Nakamura, K.Nishimura, S.Sawada and A.Erken, H.Arman and A.Onalp: Bedrock Structure in Adapazari, Turkey-A Possible Cause of Severe Damage by the 1999 Kociaeli Earthquake-, Extended Abstracts of 10th Int'l Conference on Soil Dynamics and Earthquake Engineering, pp.97, 2001.
- Ikumasa Yoshida, Tadanobu Sato: Identification of Damping Ratio Using Monte Carlo Filter Based on Exclusive Non-Gaussian Process Noise, 15th ASCE Engineering Mechanics Conference (CD-ROM) 387.pdf, 2002.
- Yuan Di, Tadanobu Sato, Yong Moon: A New Simulation Method for Liquefaction and Induced Ground Flow, 2nd Canadian Specialty Conference on Computer Applications in Geotechnique, pp.197-204, 2002.
- Yuan Di, Tadanobu Sato: Remapping Scheme in ALE Method for Liquefaction Simulation, 16th ASCE Engineering Mechanics Conference July 16-18, 2003, University of Washington, Seattle CD-ROM, 2003.
- Tadanobu SATO, Keisuke KAJI: Adaptive Monte Carlo filter and structure identification, Proceedings of the International Conference on Monte Carlo Simulation Monte Carlo/Principality of Monaco/18-21 June 2000 Monte Carlo simulation, pp.441-447, 2001
- T.Sato, T.Sakanoue, I.Yoshida: New System Identification Algorithms Combining Monte Carlo Filter and Genetic Algorithm, Proceedings of the International Conference on Advances and New Challenges in Earthquake Engineering Research, Hong Kong Volume, Vol.3, pp.579-586, 2002.
- Tadanobu SATO, Yoshitaka MURONO: Simulation of Earthquake Motions Based on Phase Information, Proceedings of the 3rd International Workshop on Performance-Based Design and Retrofit of Transportation Facilities, pp.79-87, 2002.
- Tadanobu SATO, Yong MOON, Ryosuke UZUOKA: Unfilled Analysis by the Fluidal-Elasto-Plastic Constitutive Equation of Liquefaction and Ground Flow Phenomenon, Proceedings of the Fourth china-Japan -USA Trilateral Symposium on Lifeline Earthquake Engineering, pp.9-25, 2002.
- Abraham I. Beltzer, Tadanobu Sato: Probability distribution of wave velocity in heterogeneous media due to random phase configuration, Elsevier, Wave Motion, science direct, 2003.3
- Nakashima, M., Impact of U.S. Japan Research Using Large-Scale Testing Facilities on Development of Pseudo dynamic Testing, Proceedings of the US Berkeley CUREE Symposium in Honor of Ray Clough and Joseph Penzien, May 10-11, Berkeley, CA, pp.60-61, 2002.
- (B) Research reviews**  
(reviews in Japanese, 16)
- (C) Books (1 book)**  
(books in Japanese, 18)
- Nakashima, M: APPENDIX C. Overview of Damage to Steel Building Structures Observed in the 1995 Kobe Earthquake, Past Performance of Steel Moment-Frame Buildings in Earthquakes, Federal Emergency Management Agency, Report FEMA-355E, pp.C1-C24, 2000.
- (D) Research papers in bulletins and reports (11 papers)**  
(papers in Japanese, 17)
- Irikura, K.: Achievements of strong motion seismology in 20th century and its future directions, Proceedings of US-Japan Cooperative Research for Urban Earthquake Disaster Mitigation Workshop on Prediction of Strong Ground Motions in Urban Regions, pp.53-62, 2001.
- Irikura, K., H. Miyake, T. Iwata, K. Kamae, T. Kagawa, and K. Miyakoshi: Prediction of strong ground motion for specific active-fault earthquakes, Proceedings of US-Japan Joint Workshop and third grantees meeting, pp.43-52, 2001.
- Irikura, K.: Recipe for estimating strong ground motions from active fault earthquakes, Proceedings of US-Japan Cooperative Research for Urban Earthquake Disaster Mitigation 2nd Workshop on Prediction of Strong Ground Motions in Urban Regions, pp.45-55, 2002.
- Iwata, T., H. Sekiguchi and K. Miyakoshi: Characterization of source processes of recent destructive earthquake inverted from strong motion records in the dense network, Proc. US-Japan Joint Workshop for US-Japan Cooperative Research in Urban Earthquake Disaster Mitigation, pp.46-52, 2001.
- Iwata, T. and H. Sekiguchi: Source process and near-source ground motion during the 2000 Tottori-ken Seibu earthquake (Mw6.8), Reports on assessments of seismic local-site effects at plural test sites, P.I. K. Kudo, pp.231-241, 2002.
- S.Sawada, F.Uehan, Y.Hayashi and H.Arai: 6.3 Ground Condition Estimated from Microtremor Observations, A Comprehensive Survey of the 26 January 2001 Earthquake (Mw 7.7) in the State of Gujarat, India, pp.71-74, 2001.
- Y.Hayashi, S.Sawada, S.Pareek and Y.Hisada: 7.2 Damage in Gandhidham, A Comprehensive Survey of the 26 January 2001 Earthquake (Mw 7.7) in the State of Gujarat, India, pp.84-88, 2001.
- Proceedings of The Fourth Japan-Korea Workshop on Nonlinear System Identification and Structural Health Monitoring, by Tadanobu Sato and Chung Bang Yun, 2001.2
- Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, by Chung Bang Yun and Tadanobu Sato, 2002.2

Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research, by Chin-Hsiung Loh and Tadanobu Sato, 2003.2

H. Tanaka, State-of-the-Art Report of Task Group 7.3 on the Seismic Design of Precast Concrete Buildings, Chapter 8 Foundations, 2002

### **(E) Textbooks for lectures**

(textbooks in Japanese, 14)

### **(F) Articles in newspapers and magazines**

(articles in Japanese, 6)

### **(G1) Papers presented at research meetings** (57 papers)

(papers in Japanese, 183)

Irikura, K.: Achievements of strong motion seismology in 20th century and its future directions, Proceedings of Symposium in Honor of Takuji Kobori "Earthquake Engineering in the next millennium", pp.37-45, 2001.

Dalguer, L. A., K. Irikura, H. C. Chiu, and J. Riera: Dynamic rupture simulation of the southern part of the Chelungpu fault in the Chi-Chi earthquake, Transaction of the 2000 Annual Meeting of the Geological Society of China, pp.266-268, 2000.

Irikura K, K. Kamae and L. A. Dalguer: Source model for simulating ground motion during the 1999 Chi-Chi earthquake, Proceedings of International Workshop on Annual Commemoration of Chi-Chi earthquake, Vol.I, pp.1-12, 2000.

Iwata, T., H. Sekiguchi, and K. Irikura: Rupture process of the 1999 Chi-Chi, Taiwan, earthquake and its near-source strong ground motions, Proceedings of International Workshop on Annual Commemoration of Chi-Chi earthquake Vol.1, pp.36-46, 2000.

Dalguer L. A. and Irikura K.: Dynamic source effects of dip-slip earthquake on strong ground motion, Proceeding of the 2nd ACES Workshop, pp.250-255, 2000.

Miyake, H., T. Iwata and K. Irikura: Source characterization of inland crustal earthquakes for near-source ground motions, Proceedings of the 6th International Conference on Seismic Zonation (CD-ROM), 2000.

Tsurugi, M., S. Sawada, K. Irikura and K. Toki: Distribution of the site amplification factors on Osaka plain based on questionnaire survey of the 1995 Hyogo-ken Nambu earthquake, Proceedings of the 6th International Conference on Seismic Zonation (CD-ROM), 2000.

Irikura, K. and K. Kamae.: Source characteristics for predicting strong-ground motion, International Workshop on the Quantitative Prediction of Strong-motion and the Physics of Earthquake Sources, 2000.

Zhang, W. and Matsunami, K.: A comparison of site-amplification estimated from different methods using a strong motion observation array in Tangshan, China, Proceedings of the 12th WCEE, ID 0643, 2000.

Iwata, T., H. Sekiguchi, and A. Pitarka: Source and site effects on strong ground motions in near-source area during the 1999 Chi-Chi, Taiwan, earthquake, American Geophysical Union, Fall meeting (San Francisco), S72B-07, 2000.

Miyake, H., Iwata, T., and A. Pitarka: Rupture Directivity Effects on Azimuth and Distance Dependence of Source Amplitude Spectra in Near-source Area, American Geophysical Union, Fall meeting (San Francisco), S52A-20, 2000.

Zhang, W. B., Iwata, T., and Irikura, K.: Determination on the dynamic source parameters of an earthquake from kinematic parameters, Proceedings of the Joint meeting of Earth and Planetary Science, Sp-P006, 2001.

Zhang, W. B., Iwata, T., and Irikura, K.: The characteristics of the dynamic source parameters of the 2000 Tottori-ken Seibu earthquake, Japan, Program and Abstracts of the Seismological Society of Japan Fall meeting (Kagoshima), 2001,130, 2001.

Miyake, H., T. Iwata, H. Sekiguchi, and K. Irikura: Appropriate slip velocity time function of on-/off- asperity for broadband ground motion simulation, American Geophysical Union, Fall meeting (San Francisco), S42C-0677, 2001.

Zhang, W. B., Iwata, T., and Irikura, K.: The characteristics of the dynamic source parameters of the 1999 Chi-Chi, Taiwan, earthquake, and the 2000 Tottori, Japan, earthquake, American Geophysical Union, Fall meeting (San Francisco), S22B-0645, 2001.

Sekiguchi, H. and T. Iwata: Source Process Inversion and Near-Source Ground Motion Simulation of the 2000 Tottoriken-Seibu, Japan, Earthquake (Mw6.8), American Geophysical Union, Fall meeting (San Francisco), S42C-0654, 2001.

Irikura, K., H. Miyake, T. Iwata, K. Kamae, T. Kagawa, and K. Miyakoshi: A recipe of strong motion prediction for scenario earthquakes, American Geophysical Union, Fall meeting (San Francisco), S31C-01, 2001.

Suita, K., Nakashima, M., Engelhardt, M.D.: Plastic Rotation Capacity of post-Northridge and post-Kobe Beam-to-column Connections, Proceedings of the 2nd Korea-Japan Joint Seminar on Earthquake Engineering for Building Structures, pp.103-112, 2000.

Suita K., Inoue, K., Takeuchi, I., Uno N.: Mechanical Behavior of Bolted Beam-to-Column Connections with Hysteretic Damper, Proceedings of The 3rd Japan-Korea-Taiwan Joint Seminar on Earthquake Engineering for Building Structures, pp.117-125, 2001.

Tadanobu Sato, Riki Honda, Shunjiro Shibata and Naoki Takegawa: Ground strain measuring system using optical fiber sensors, Proceedings of the SPIE's 8th Annual International Symposium on Smart Structures and Materials, Vol.4328, pp.35-46, 2001.

Tadanobu Sato, Keisuke Kaji: Non-Linear Structural Identification using Robust and Adaptive Kalman Filter, Proceedings of the first MCEEER Workshop on Mitigation of earthquake Disaster by Advanced Technologies. Technical Report MCEEER-00-0009, pp.107-124, 2000.

- Tadanobu Sato, Yoshitaka Muro, Tomohiro Kawanishi: Modeling of Phase Spectra And Its Application For Interpolation Of Earthquake Motions Observed During The 1999 Chi-Chi Earthquake, International Workshop on Annual Commemoration of Chi-Chi Earthquake, Taipei, Taiwan, R.O.C., Vol.1, pp.233-243, 2000
- Tadanobu Sato, Yoshitaka Muro: Modeling Phase Spectra of Recorded Earthquake Motions During the 1999 Chi-Chi Taiwan Earthquake 2nd International Workshop on Mitigation of Seismic on Transportation Structures, pp.211-221, 2000.
- Tadanobu SATO, Jun YANG: Saturation Effects on Ground Surface Motion in Horizontal and Vertical Components, Proceedings of the Thirteenth KKN Symposium on Civil Engineering, pp.261-266, 2000.
- Tadanobu SATO, Yoshitaka MURONO: Simulation of Earthquake Motion from Phase Information, Proceedings of Second Japan-Iran Workshop on Earthquake Engineering and Disaster Mitigation, pp.65-70, 2000.
- Yoshitaka MURONO, Tadanobu SATO: Response Characteristics of Base Isolation Structures Using Seismic Records during Taiwan Chi-Chi Earthquake (1999), Proceedings of Second Japan-Iran Workshop on Earthquake Engineering and Disaster Mitigation, pp.107-112, 2000.
- Tadanobu Sato, Yoshitaka Muro: Response Characteristics of Base Isolation Structures Using Seismic Records During Taiwan Chi-Chi Earthquake, US-Japan Workshop on Smart Structures for Improved Seismic Performance in Urban Regions August 14, 2001, Seattle, Wa, USA, pp.119-127, 2001.
- Tadanobu Sato, Riki Honda, Takashi Sakanoue: Application of Adaptive Kalman Filter to Identify a Five story Frame Structure using NCREE Experimental Data, Proceeding of U.S.-JAPAN cooperative research on urban earthquake disaster mitigation, pp.302311, 2001.
- T. Kawanishi, T.Sato: Simulation of Earthquake Motions using Observed Phase, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.1-7, 2002.
- N.Takegawa, T.Sato, R.Honda: Ground Deformation Measuring System Using Optical Fiber Sensors, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.15-22, 2002.
- Yuan Di, Yong Moon, Tadanobu Sato: Numerical Simulation of seismic Response of Site Overlying on Liquefiable soil Layer, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.47-52, 2002.
- Yong Moon, Tadanobu Sato, Ryosuke Uzuoka: Analytical and Numerical Study on the Unified modeling of Liquefaction and Flow Processes, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.53-58, 2002.
- T.Matsumaru, Y.Moon, F.Zhang, T.Sato: 3-Dimensional Effective Stress Analysis of Pile Foundation Subjected to Lateral Flow of Liquefied Ground, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.59-64, 2002.
- Xiaowei Tang, Yuan Di, Tadanobu Sato: Dynamic Analysis of Saturated porous Medium by 3D FEM-FDM Coupled Method Considering large deformation, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.83-88, 2002.
- K.Ogiyama, T.Sato: A Linear Algorithm to Identify the Structural System Using the Acceleration Data, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.133-139, 2002.
- T.Sato, T.Sakanoue, I.Yoshida: Development of the Algorithm to Identify Structural System Using Statistical Filter Theories, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.141-149, 2002.
- S.Ichida, R.Honda, T.Sato: System identification Focused on Adaptability to Non-Stationarity, Proceedings of KAIST-Kyoto Univ. Joint Seminar on Earthquake Engineering, pp.150-155, 2002.
- Tadanobu SATO, Tomohiro KAWANISHI: Simulation of Earthquake Motions Using Observed Phase Spectra -case studies for the 1999 CHI-CHI earthquake--, Proceedings of the Second Japan-Taiwan Workshop on Lifeline Performance and Disaster Mitigation, pp.98-104, 2002.
- T. Sato, T. Sakanoue, I. Yoshida: Structural Identification Algorithm Combining Genetic Algorithm and Monte Carlo Filter, Proceeding of the US-Korea Workshop on Smart Infra-Structural Systems, pp.301-308, 2002.
- T.Sato, S.Ichida: Simultaneous Identification of System Parameters and Time History of External Force, Proceedings of 15th KKCNN 2002 Symposium on Civil Engineering, pp.226-231, 2002.
- Y.Muro, T.Sato, M.Murakami: Modering of Phase Spectra for Simulation of Near-Fault Ground Motions, Proceedings of 15th KKCNN 2002 Symposium on Civil Engineering, pp.95-100, 2002.
- T.Sato, K.Ogiyama: A Linear Algorithm to Identify Structural Systems Using the Concept of Adjusting Equivalent External Force, Proceedings of 15th KKCNN 2002 Symposium on Civil Engineering, pp.220-225, 2002.
- T. Sato, K. Ogiyama, M. J. Chung: Development and Application of a Wireless Data Acquisition System for Structural Identification, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.1-6, 2003
- T. Sato, S. Ichida: Simultaneous Identification of Structural Parameters and Time History of External Excitations by Using ICA and MCF Algorithm, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.7-14, 2003
- T. Sato, K. Ogiyama: A Linear Structural Identification Using the Concept of Equivalent External Force and Partial Structural Responses, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.26-33, 2003

- T. Sato, T. Matsumaru, Y. Moon, F. Zhang, R. Uzuoka: 3-Dimensional Response of a Pile-Ground System during Liquefaction and Flow Process of the Ground, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.55-64, 2003
- T. Sato, M. Masumoto: Prioritization of Seismic Reinforcement for Road Bridges Based on the Concept of Life Cycle Cost, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.113-120, 2003
- T. Sato, Y. Tanaka: Efficient System Identification Algorithm Applicable to Large Scale Systems, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.82-90, 2003
- T. Sato, Xiaowei Tang: Error Estimation and Adaptive Mesh Refinement in Update Lagrangian FEM for Liquefiable Soil, Proceedings of NTU/NCREE-KU Joint Seminar on Civil Engineering Research February 27, 2003, pp.175-185, 2003
- Riki Honda: Analysis of Wave Propagation in the Media with Uncertainty by Stochastic Finite Element Method, Proc. of Autumn Conference of Seismological Society of Japan, No.S1, 2000.
- S. Sawada, K. Toki and S. Murakawa: A New Seismic Design Method for Embankment using Single-side Strength Spectra, The 13th KKNN Seminar on Civil Engineering, Taipei, pp.225-230, 2000.
- S. Sawada, K. Toki and S. Takada: Design Spectra for the Seismic Deformation Method defined on Ground Surface, Proceedings of the 14th KKNN Symposium on Civil Engineering, pp.113-118, 2001
- R.Honda and S. Sawada, Digital Filtering Time Integration Scheme, Proceedings of the 14th KKNN Symposium on Civil Engineering, pp.119-122, 2001.
- Kono S., H. Tanaka, F. Watanabe, Interface Shear Transfer For High Strength Concrete And High Strength Shear Friction Reinforcement, Proceedings of The 4th Japan-Korea-Taiwan Joint Seminar on Earthquake Engineering for Building Structures, SEEBUS 2002, pp.77-86, 2002.
- Iwata, T., H. Sekiguchi, H. Miyake, W. Zhang, and K. Miyakoshi, Dynamic Source Parameters and the Characterized Source Model, Proc. 31th IASPEI meeting, July, Sapporo, 2003.
- Riki Honda, Spectral stochastic BEM (Estimation of the effect of geometrical uncertainty of boundary), S12B-1212, AGU 2002 fall meeting, December, Moscone Center, San Francisco, California, 2002.
- Suita K., Inoue, K. and Kanoh, N., Strength and Deformation of Bolted Beam-to-Column Connection Accompanied by Panel Zone Yield, Proceedings of The 4th Japan-Korea-Taiwan Joint Seminar on Earthquake Engineering for Building Structures, SEEBUS 2002, pp.67-75, 2002.10

**(G2) Non-refreed papers**

(papers in Japanese, 8)

## 6.2.3 Division of Geo-Disaster and Research Centre on Landslides, which was established in April 2003

### (A1) Complete refereed papers (61 papers) (papers in Japanese, 12)

- Kamon, M., Katsumi, T. and Sano, Y.: MSW fly ash stabilized with coal ash for geotechnical applications, *Journal of Hazardous Material*, Vol.76, pp.263-283, 2000.
- Ichii, K., Iai, S. and Morita, T. Performance of the quay wall with high seismic resistance, *Japan Society of Civil Engr. , I*, No.654/I-52(*Journal of Structural Mechanics and Earthquake Engineering, JSCE*, Vol.17, No.2), pp.39-50(pp.163s-174s), 2000.
- Boulanger, R.W. and Iai, S.: Performance of waterfront structures, Kocaeli, Turkey, Earthquake of August 17, 1999, Reconnaissance Report, *Earthquake Spectra, Supplement A* to Vol.16, EERI, pp.295-310, 2000.
- Kamon, M., Gu, H. and I, M.: Improvement of mechanical properties of ferrum lime stabilized soil with the addition of aluminum sludge, *Material Science Research International*, Vol.7, No.1, pp.47-53, 2001.
- Kamon, M.: Remediation techniques by use of ground improvement, *Soft Ground Technology*, J.L. Hanson and R.J. Termaat (eds.), ASCE, pp.374-387, 2001.
- Kamon, M., Suwa, S., Fukuda, M. and Shimonodan, T.: Required discharge capacity of PVD and its confining pressure dependency, *Material Science Research International, Special Technical Publication 2*, pp.17-20, 2001.
- Ito, Y., Kamon, M., Nomura, T., Izuta, H. and Katanoda, E.: A new consolidation method using freezing and thawing effect, *Material Science Research International, Special Technical Publication 2*, pp.13-16, 2001.
- Kamon, M., Mizoguchi, T. and I, M.: Traffic vibration decrement properties using lime stabilization, *Material Science Research International, Special Technical Publication 2*, pp.25-28, 2001.
- Katsumi, T., Benson, C.H., Foose, G.J. and Kamon, M.: Performance-based design of landfill liners, *Engineering Geology*, Vol.60, Nos.1-4, pp.139-148, 2001.
- Iai, S. and Bardet, J.P.: Plane strain instability of saturated elastoplastic soils, *Geotechnique*, Vol.51, No.5, pp.389-398, 2001.
- Wang Wen-Neng, Furuya T., and Chigira, M.: Geological and geomorphological precursors of the Chiu-fen-erh-shan landslide triggered by the Chi-chi Earthquake in central Taiwan. *Engineering Geology*, Vol.69, pp1-13, 2003
- Chigira, M., Wang Wen-Neng, Furuya T., and Kamai, T. (2003). Geological causes and geomorphological precursors of theTsaoling landslide triggered by the 1999 Chi-Chi Earthquake, Taiwan. *Engineering Geology*, Vol. 68, pp. 259-273, 2003.
- Chigira, M., Nakamoto, M., Nakata, E.: Weathering mechanisms and their effects on the landsliding of ignimbrite subject to vapor-phase crystallization in the Shirakawa pyroclastic flow, northern Japan., *Engineering Geology*, pp.111-125, 2002.
- Chigira, M.: Geologic factors contributing to landslide generation in a pyroclastic area: August 1998 Nishigo Village, Japan., *Geomorphology*, pp.117-128, 2002.
- Chigira, M.: Micro-sheeting of granite and its relationship with landsliding specifically after the heavy rainstorm in June 1999, Hiroshima Prefecture, Japan, *Engineering Geology*, Vol.59, pp.219-231, 2001.
- Chigira, M.: Geological structures of large landslides in Japan, *Journal of Nepal Geological Society*, Vol.22, pp.497-504, 2000.
- Okunishi, K. and Suwa, H.: Assessment of debris-flow hazards of alluvial fans, *Natural Hazards*, Vol.23, pp.259-269, 2001.
- Yamakoshi, T. and Suwa, H.: Post-eruption characteristics of surface runoff and sediment discharge on the slope of Pyroclastic-flow deposits, Mount Unzen, Japan, *Trans. Japan. Geomorph. Union*, Vol.21, No.4, pp.469-497, 2000.
- Lavigne, F., Thouret, J., Voight, B., Suwa, H. and Sumaryono, A.: Lahars at Merapi volcano, Central Java an overview, *Journal of volcanology and geothermal research*, Vol.100, pp.423-456, 2000.
- Lavigne, F., Thouret, J., Voight, B., Young, K., LaHusen, R., Marso, J., Suwa, H., Sumaryono, A., Sayudi, D. and Dejean, M.: Instrumental lahar monitoring at Merapi Volcano, Central Java, Indonesia, *Journal of volcanology and geothermal research*, Vol.100, pp.457-478, 2000.
- O. Watanabe, K. Kamiyama, H. Motoyama, Y. Fujii, M. Igarashi, T. Furukawa, K. Goto-Azuma, T. Saito, S. Kanamori, N. Kanamori, N. Yoshida and R. Uemura, General tendencies of stable isotopes and major chemical constituents of the Dome Fuji deep ice core, *Mem. Natl Inst. Polar Res., Spec. Issue, No. 57 - Global Scale Climate and Environment Study through Polar Deep Ice Cores*, pp. 1-24, 2003.
- H. Shoji, A. Miyamoto, K. Shimohara, O. Watanabe, Y. Fujii, K. Kamiyama, H. Motoyama, K. Azuma, M. Igarashi, M. Takata, M. Kohno, S. Fujita, T. Nakazawa, S. Aoki, K. Kawamura, H. Narita, K. Kawada, N.Azuma, T. Saito, H. B. Clausen and S. J. Johnsen, A bipolar comparison of deep ice cores from Antarctica (Dome Fuji) and Greenland (GRIP), *Mem. Natl Inst. Polar Res., Spec. Issue, No. 57 - Global Scale Climate and Environment Study through Polar Deep Ice*, pp. 72-85, 2003.
- Y. Fujii, N. Azuma, Y. Tanaka, Y. Nakayama, T. Kameda, K. Shinbori, K. Katagiri, S. Fujita, A. Takahashi, K. Kawada, H. Motoyama, H. Narita, K. Kamiyama, T. Furukawa, S. Takahashi, H. Shoji, H. Enomoto, T. Saito, M. Miyahara, R. Naruse, T. Hondoh, T. Shiraiwa, K. Yokoyama, Y. Ageta, T. Saito and O. Watanabe, Deep ice core drilling to 2503m depth at Dome Fuji, Antarctica, *Mem. Natl Inst. Polar Res., Spec. Issue, 56*, pp. 102-116, 2002.
- Takashi Saito, Analysis of runoff characteristics in a small mountain basin by the use of hydrogen and oxygen stable isotopes. *Limnology*, 1-3, pp.217-224, 2000.

- Sassa-K; Fukuoka-H; Shuzui-H.: Field investigation of the slope instability at Inca's world heritage, in Machupicchu, Peru, IGCP-425 Landslide hazard assessment and cultural heritage. Landslide News, Vol.13, pp.37-41, 2000.
- Vankov, D.A. and K. Sassa: Mechanism of earthquake-induced landslides on almost flat slopes studied with a ring shear apparatus, Journal of Natural Disaster Science, Vol.21, No.1, pp.23-35, 2000.
- Wang, F.W., K. Sassa and H. Fukuoka: Geotechnical simulation test for the Nikawa landslide induced by 1995.1.17 Hyogoken-Nambu earthquake, Soils and Foundations, Vol.40, No.1, pp.35-46, 2000.
- Okada, Y., Sassa, K., & Fukuoka, H.: Liquefaction and the steady state of weathered granitic sands obtained by undrained ring shear tests, a fundamental study of the mechanism of liquidized landslides, Journal of Natural Disaster Science, Vol.22, No.2, pp.75-85, 2000.
- Wang, F.W., & Sassa, K.: Relationship between grain crushing and excess pore pressure generation by sandy soils in ring-shear tests, Journal of Natural Disaster Science, Vol.22, No.2, pp.87-96, 2000.
- Gonghui WANG & Kyoji SASSA.: Factors affecting rainfall-induced flowslides in laboratory flume tests, Geotechnique, Vol.51, No.7, pp.587-599, 2001.
- Fawu Wang, Kyoji Sassa & Gonghui Wang: Mechanism of a long-runout landslide triggered by the August 1998 heavy rainfall in Fukushima Prefecture, Japan., Engineering Geology, Vol.63, pp.169-185, 2002.
- Gonghui Wang & Kyoji SASSA: Post-failure mobility of saturated sands in undrained load-controlled ring shear tests, Canadian Geotechnical Journal, Vol.39, No.4, pp.821-837, 2002.
- Kazuo Okunishi, D. E. Wall-ing and Takashi Saito: A hydrological model of the mobilisation of fine suspended sediment from slopes, Transactions, Japanese Geomorphological Union, Vol.21, No.3, pp.243-260, 2000.
- Kazuo Okunishi and Hiroshi Suwa: Assessment of debris-flow hazards of alluvial fans, Natural Hazards, Vol.23, pp.259-269, 2001.
- K. Broholm, B. Nilsson, R.C. Sidle, and E. Arvin.: Transport and biodegradation of creosote compounds in clayey till, a field experiment, J. Contaminant Hydrology, Vol.41(3/4), pp.239-260, 2000.
- R.C. Sidle, I. Kamil, A. Sharma and S. Yamashita: Stream response to subsidence from underground coal mining in central Utah, Environmental Geology, Vol.39(3/4), pp.279-291, 2000.
- Y. Tsuboyama, R.C. Sidle, S. Noguchi, S. Murakami, and T. Shimizu.: A zero-order basin - its contribution to catchment hydrology and internal hydrological processes, Hydrol. Processes, Vol.14, pp.387-401.2000.
- R.C. Sidle, Y. Tsuboyama, S. Noguchi, I. Hosoda, M. Fujieda, and T. Shimizu.: Stormflow generation in steep forested headwaters: a linked hydrogeomorphic paradigm, Hydrol. Processes, Vol.14, pp.369-385, 2000.
- S. Noguchi, Y. Tsuboyama, R.C. Sidle, and I. Hosoda.: Subsurface runoff characteristics from a forest hillslope soil profile including macropores, Hitachi Ohta, Japan, Hydrol. Processes, Vol.15, pp.2131-2149, 2001.
- B. Nilsson, R.C. Sidle, K.E. Klint, C.E. Bøggild, and K. Broholm.: Mass transport and scale dependent hydraulic tests in a heterogeneous glacial till - sandy aquifer system, J. Hydrology, Vol.243, pp.162-179, 2001.
- R.C. Sidle, S. Noguchi, Y. Tsuboyama, and K. Laursen: A conceptual model of preferential flow systems in forested hillslopes: evidence of self-organization, Hydrol. Processes, Vol.15, pp.1675-1692, 2001.
- T. Gomi, R.C. Sidle, M.D. Bryant, and R.D. Woodsmith: The characteristics of woody debris and sediment distribution in headwater streams, Southeast Alaska, Can. J. Forest Research, Vol.31, pp.1386-1399, 2001.
- J.L. Urban, R.A. Kozak, R.C. Sidle and S.J.B. Duff: Assessment of relative environmental risk from logyard run-off in British Columbia, The Forestry Chronicle, Vol.78, No.1, pp.146-151, 2002.
- T.Gomi, R.C. Sidle, and J.S. Richardson: Under standing processes and downstream linkages of headwater systems, BioScience, Vol.52, pp.905-916, 2002.
- P.A. Todd, R.C. Sidle and L.M. Chou. 2002. Plastic corals from Singapore: 1. Coral Reefs 21(7): 391-392.
- P.A. Todd, R.C. Sidle and L.M. Chou. 2002. Plastic corals from Singapore: 2. Coral Reefs 21(7): 407-408.
- T. Gomi, R.C. Sidle, R.D. Woodsmith, and M.D. Bryant. 2003. Characteristics of channel steps and reach morphology in headwater streams, southeast Alaska. Geomorphology 51: 225-241.
- A.S. Dhakal and R.C. Sidle. 2003. Long-term modeling of landslides for different forest management practices. Earth Surface Processes and Landforms 28: 853-868.
- H.-J. Kim, R.C. Sidle, R.D. Moore, and R. Hudson. 2003. Hydrological contributions of subsurface flow during snowmelt in a forest catchment, coastal British Columbia. Hydrological Processes 17: (in press).
- T. Gomi and R.C. Sidle. 2003. Bedload transport in managed steep-gradient headwater streams of southeast Alaska. Water Resources Research 39: (in press).
- R.C. Sidle, D. Taylor, X.X. Lu, W. N. Adger, W. deLange, D.J. Lowe, and R.N. Newnham. 2003. Interactions of natural hazards and humans: evidence in historical and recent records. Quaternary International (online, in press).
- Kamai, T., W. N. Wang and H.Shuzui: The Landslides Disaster induced by Taiwan Chi-Chi earthquake of 21 September 1999, Landslide News No.13, pp.8-12, 2000.
- Ichii, K., Iai, S., Sato, Y., and Liu, Hanlong: Seismic performance evaluation charts for gravity type quay walls, pp.1-11, Journal of Structural Mechanics and Earthquake Engineering, JSCE,



- No.703/I-59., pp.1-11, 2002
- Ozutsumi, O., Sawada, S., Iai, S., Takeshima, Y., Sugiyama, W., and Shimazu, T.: Effective stress analysis of liquefaction-induced deformation in river dikes, *Soil Dynamics and Earthquake Engineering*, Vol 22/9-12, 2002.11, pp.1075-1082
- Bardet, J.P., and Iai, S.: Axisymmetric instability of fluid saturated pervious cylinders, *Journal of Applied Mechanics, ASME*, Vol.69, pp.1-7, 2002
- M. Kanatani, H. Kiku, S. Yasuda, N. Yoshida, K. Ishihara, T. Kokusho, M. Mimura, Y. Goto and I. Morimoto: Damage on Waterfront Ground During the 1999 Kocaeli Earthquake in Turkey, *Soils and Foundations*, Vol. 43, No. 5, pp.29-40, 2003.
- M. Mimura, K. Takeda, K. Yamamoto, T. Fujiwara and W. Jang: Long-term Settlement of the Reclaimed Quasi-overconsolidated Pleistocene Clay Deposits in Osaka Bay, *Soils and Foundations*, Vol. 43, No. 6, pp.141-153, 2003.
- Fawu Wang, Kyoji Sassa & Gonghui Wang (2002). Mechanism of a long-runout landslide triggered by the August 1998 heavy rainfall in Fukushima Prefecture, Japan. *Engineering Geology* 63, 169-185.
- Gonghui Wang & Kyoji SASSA. (2003). Pore pressure generation and movement of rainfall-induced landslides: effects of grain size and fine particle content. *Engineering geology* 69, pp.109-125.
- Gonghui Wang, Kyoji Sassa, and Hiroshi Fukuoka. (2003). Downslope volume enlargement of a debris slide-debris flow in the 1999 Hiroshima, Japan, Rainstorm. *Engineering geology* 69, pp. 309-330
- Kyoji Sassa, Gonghui Wang, & Hiroshi Fukuoka. (2003). Performing undrained shear tests on saturated sands in a new intelligent type of ring shear apparatus. *Geotechnical Testing Journal, ASTM*, 26(3), pp.257-265.
- (A2) Refreed papers (87 papers)**  
(papers in Japanese, 24)
- Chen, G., Suwa, S., Fukuda, M., Kamon M. and Chikami, K.: Specification for evaluating the quality of PVD, *Proc. International Seminar on Geotechnics in Kochi*, pp.181-184, 2000.
- Chung, H.I. and Kamon, M.: Sedimentation and remediation of contaminated waste slurries by electrokinetics, *Proc.4th Kansai International Geotechnical Forum*, pp.217-220, 2000.
- Kamon, M.: Ground improvement techniques, *Proc. International Seminar on Geotechnics in Kochi*, pp.1-12, 2000.
- Kamon, M., Hartlen, J. and Katsumi, T.: Reuse of waste and its environmental impact, *Proc. International Conference on Geotechnical and Geological Engineering*, Vol.1, pp.1095-1123, 2000.
- Kamon, M., Katsumi, T., Rajasekaran, G. and Inazumi, S.: Waste sludges utilization as landfill cover, *International Conference on Geotechnical and Geological Engineering*, *Proc. International Conference on Geotechnical and Geological Engineering*, Paper No.EG0160 on CD-ROM, 2000.
- Kamon, M., Katsumi, T., Sawa, N. and Ito, K.: Minimization of heavy metal leaching effect from dredged sediments involving reclamation, *Coastal Geotechnical Engineering in Practice*, A. Nakase and T. Tsuchida, eds., Balkema, Rotterdam, pp.629-634, 2000
- Kamon, M., Katsumi, T., Sawa, N. and Ito, K.: Minimization of heavy metal leaching effect from dredged sediments, *Proc. 4th Kansai International Geotechnical Forum*, pp.253-258, 2000.
- Kamon, M., Rajasekaran, G. and Katsumi, T.: Role of ground improvement technology in geo - environmental engineering, *Proc. Third International Conference on Ground Improvement Techniques*, pp.13-36, 2000.
- Kiyama, M., Kamon, M., Miura, N., Suwa S. and Fukuda, M.: History of development of prefabricated vertical drain in Japan, *Proc. International Seminar on Geotechnics in Kochi*, pp.141-146, 2000.
- Nontanandh, S. and Kamon M.: Environmental geo-technics for utilization of wastes, *Proc. 4th Kansai International Geotechnical Forum*, pp.55-70, 2000.
- Rajasekaran, G., Inazumi, S., Katsumi, T. and Kamon, M.: Hydraulic conductivity assessment of paper mill sludge, *Proc. 4th Kansai International Geotechnical Forum*, pp.137-142, 2000.
- Takahashi, S., Kondo, M. and Kamon, M.: Laboratory tests on self-healing property of a geomembrane- supported geosynthetic clay liner, *Proc. 4th Kansai International Geotechnical Forum*, pp.131-136, 2000.
- Tanaka, Y., Kamon, M., Tanaka, H., Suwa, S., Hongo, T. and Fukuda, M.: Testing method to evaluate discharge capacity of prefabricated vertical drain by soil tank, *Proc. International Seminar on Geotechnics in Kochi*, pp.185-190, 2000.
- Mimura, M. and Sumikura, Y.: Deformation and Excess Pore water Pressure of the Pleistocene Marine Deposits due to Offshore Reclamation, *Proc. Int. Symp. on Coastal Geotechnical Engineering in Practice*, IS-Yokohama 2000, pp.339-344, 2000.
- Dobry, R. and Iai, S.: Recent developments in the understanding of earthquake site response and associated seismic code implementation, *International Conference on Geotechnical and Geological Engineering*, *GeoEng2000*, pp.186-219, 2000.
- Iai, S. and Sugano, T.: Shake table testing on seismic performance of gravity quay walls, *Proc. 12th World Conference on Earthquake Engineering*, CD-ROM. Paper2680, pp.1-8, 2000.
- Sawada, S., Ozutsumi, O. and Iai, S.: Analysis of liquefaction induced residual deformation for two types of quay walls: analysis by FLIP, *Proc. 12th World Conference on Earthquake Engineering*, CD-ROM, Paper2486, pp.1-8, 2000.
- Ichii, K., Sato, Y., Iai, S. and Liu, H.: Evaluation of the seismic performance of gravity type quay wall using effective stress analyses, *Proc. 12th World Conference on Earthquake Engineering*, CD-ROM, Paper1784, pp.1-8, 2000.
- Ozutsumi, O., Yuu, K., Kiyama, M. and Iai, S.: Residual

- deformation analysis of sheet pile quay wall and backfill ground at Showa-Ohashi site by simplified method, Proc. 12th World Conference on Earthquake Engineering, CD-ROM. Paper2487, pp.1-8, 2000.
- Kamon, M., Katsumi, T. and Inui, T.: Environmental suitability assessment of incinerator waste ashes in geotechnical applications, *Geoenvironmental Engineering*, R.N. Yong and H.R. Thomas, eds., Tomas Telford, pp.21-26, 2001.
- Kamon, M., Katsumi, T., Zhang, H., Sawa, N. and Rajasekaran, G.: Redox effect on hydraulic conductivity and heavy metal leaching from marine clay, *Clay Science for Engineering*, K. Adachi and M. Fukue, eds., Balkema, Rotterdam, pp.505-510, 2001.
- Kamon, M. and Yokouchi, N.: Landfill islands project for creating new environment, Proc. 2nd Civil Engineering Conference in the Asia Region, ACECC, pp.235-242, 2001.
- Kamon, M., Zhang, H. and Katsumi, T.: Redox effect on attenuation of heavy metals in landfill site, *Japanese Geotechnical society*, pp.345-350, 2001.
- Minase, M., Kondo, M. and Kamon, M.: Evaluation of permeability of bentonite mud cake, *Clay Science for Engineering*, K. Adachi and M. Fukue, eds., Balkema, Rotterdam, pp.267-273, 2001.
- Kamon, M. and Katsumi, T.: Clay liners for waste landfill, *Clay Science for Engineering*, K. Adachi and M. Fukue, eds., Balkema, Rotterdam, pp.29-48, 2001.
- Kamon, M and Jang, Y.-S.: Solution scenarios of geo-environmental problems, *Soil Mechanics and Geotechnical Engineering*, S.W. Hong et al., eds., Balkema, pp.833-852, 2001.
- Kiku, H., Ishihara, K., Kanatani, M. Mimura, M. and Morimoto, I.: The change of waterline and water depth at Izmit Bay due to 1999 Kocaeli Earthquake in Turkey, Proc. 4th Int. Conf. On Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, Paper No. 10.35 in CD-ROM, 2001.
- Mimura, M. and Suzaki, T.: Liquefaction assessment for natural sandy deposits with cone tests, Proc. Int. Conf. On In-situ Measurement of Soil Properties and Case Histories, pp.455-460, 2001.
- Karthkeyan, M., Dasari, G.R., Tan, T.S., Lam, P.W. and Mimura, M. Characterization of a reclaimed land site in Singapore, Proc. 3rd Int. Conf. on Soft Soil Engineering, pp.587-592, 2001.
- Matsui, T., Mimura, M., Oda, K., Takeda, K., Suwa, S. and Yamamoto, K.: Settlement behavior of Pleistocene marine clay deposits due to reclamation in Osaka Bay, Proc. 3rd Int. Conf. on Soft Soil Engineering, pp.429-434, 2001.
- Yokota, H., Iai, S. and Yamamoto, S.: Performance - based seismic design for port structures, *International Conference on Safety, Risk and Reliability-Trends in Engineering*, IABSE, pp.197-202, 2001.
- Iai, S.: Recent studies on seismic analysis and design of retaining structures, State-of-the-art, Proc. 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, CD-ROM, Paper SOAP-4, pp.1-28, 2001.
- Ozutsumi, O. and Iai, S.: Adjustment method of the hysteresis damping for multiple shear spring model, Proc. 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics CD-ROM, Paper 1.68, pp.1-8, 2001
- Miwa, S., Nozu, M., Ozutsumi, O., Iai, S., Yashima, A. and Yasuda, S.: Effective stress analysis for evaluating the effect of the sand compaction pile method during the 1995 Hyogoken-Nambu earthquake, Proc. 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics CD-ROM, Paper 4.42, pp.1-8, 2001.
- Suwa, H.: Repetition of debris flows on sunny days at a torrent in Karakorum, *Debris-Flow Hazards Mitigation* (Millpress, Proc. 3rd Inter. Conf. On Debris-Flow Hazards Mitigation, Ed. By Rickenmann, D. & Chen, C.), 1025-1035, 2003.
- Suwa, H., Akamatsu, J. and Nagai, Y.: Energy radiation by elastic waves from debris flows, *Debris-Flow Hazards Mitigation* (Millpress, Proc. 3rd Inter. Conf. On Debris- Flow Hazards Mitigation, Ed. By Rickenmann, D. & Chen, C.), 895-904, 2003.
- Suwa, H., Yamakoshi, T. and Sato, K.: Relationship between debris-flow discharge and ground vibration, *Proceedings of the 2nd International Conference on Debris-Flow Hazards Mitigation*, pp.311-318, 2000.
- Suwa H. and Yamakoshi, T.: Estimation of debris-flow motion by field survey, *Debris-Flow Hazards Mitigation*, Balkema, Estimation of debris-flow motion by field survey, *Debris-Flow Hazards Mitigation*, Balkema, pp.293-299, 2000.
- Sassa, K.: Mechanism of flows in granular soils. Invited paper. Proc. GeoEng2000, Melbourne, Vol.1, pp.1671-1702, 2000.
- Wang, G. H., Sassa, K. Fukuoka, H & Wang, F. W.: Study on the excess pore pressure generation in laboratory-Induced-landslides. Proc. 8th Congr. Int'l Assoc. Engrg. Geol. and the Environ., "Engineering Geology" (Editor: Moore ad Hungr), Balkema, Vol. 6, pp.4237-4244, 2000.
- Wang, G.H. & K. SASSA.: Effects of grain size on sliding surface liquefaction behavior of sands based on ring shear tests. "Landslides in Research, Theory and Practice", Proceedings of 8th international Symposium on Landslides (edited by Eddie Bromhead, Neil Dixon and Maia-Laura Ibsen). Cardiff, Wales, UK, Vol. 3, pp.1539-1544, 2000.
- Wang, F.W., G.H. Wang and K. SASSA.: Mechanism of a long run-out landslide triggered by the August 1998 heavy rainfall in Fukushima Prefecture. "Landslides in Research, Theory and Practice", Proceedings of 8th international Symposium on Landslides (edited by Eddie Bromhead, Neil Dixon and Maia-Laura Ibsen). Cardiff, Wales, UK, Vol. 3, pp.1532-1538, 2000.
- Furuya, G., K. Sassa and H. Fukuoka.: Monitoring of slope deformation in Lishan Landslide, Xi'an, China. Proc. 8th Int'l Symp.on Landslides, Thomas Telford "Landslides in research, theory and practice, " Vol.1, pp.591-596, 2000.
- Hiura, H., G. Furuya, H. Fukuoka and K. Sassa.: Investigation of

- the groundwater distribution in a crystalline schist landslide Zentoku, Shikoku Island, Japan. Proc. 8th Int'l Symp.on Landslides, Thomas Telford "Landslides in research, theory and practice," Vol.1, pp.719-724, 2000.
- Okada, Y., K. Sassa and H. Fukuoka.: Excess pore pressure generation of sandy soil during shearing. Proc. 8th Int'l Symp.on Landslides, Thomas Telford "Landslides in research, theory and practice," Vol.3, pp.1147-1152, 2000.
- Vankov, D.A. and K. Sassa.: Possibility of analysis of landslide's background by application of energy approach to particle crushing. Proc. 8th Int'l Symp.on Landslides, Thomas Telford "Landslides in research, theory and practice," Vol.3, pp.1509-1514, 2000.
- Gonghui Wang & Kyoji Sassa.: Undrained shear behavior of silty soils in ring-shear tests. Proceedings of GeoEng 2000, Melbourne, Australia. Volume 2, extended Abstract, p.117 (full paper available on CD-ROM), 2000.
- Gonghui Wang & Kyoji SASSA.: Examining the undrained localized shearing behavior of silty soils for landslides based on ring shear tests. Fourteenth Southeast Asian Geotechnical Conference, 10-14 December 2001, Hong Kong, pp.929-934, 2001.
- Gonghui Wang & Kyoji Sassa .: Fluidization behavior of silty soils in the shear zone based on ring shear tests. Proceedings of the fourth international conference on recent advances in geotechnical earthquake engineering and soil dynamics, San Diego, California Paper No.4-37. March 26-31, 2001 (full paper available on CD-ROM)
- Sassa, k., Fukuoka, H., Kamai, T., and Shuzui, H.: Landslide Risk at Inca's World Heritage in Machu Picchu, Peru. Landslide Risk Mitigation and Protection of Cultural and Natural Heritage (Sassa ed.). Proc. UNESCO/IGCP Symp., 15-19 January 2001, Tokyo, pp.1-14, 2001.
- Sassa, k., Fukuoka, H., Wang, G., Wang, F., and Furuya, G.: Pilot study of landslide hazard assessment in the Imperial Resort Palace (Lishan), Xi'an, China. Landslide Risk Mitigation and Protection of Cultural and Natural Heritage (Sassa ed.). Proc. UNESCO/IGCP Symp., 15-19 January 2001, Tokyo, pp.15-34, 2001.
- K. Sassa, G. H. Wang, H. Fukuoka, D. Vankov, and Y. Okada.: Evaluation of dynamic shear characteristics in landslides. Proceedings of the International Conference on Landslides - Causes, Impacts and Countermeasures. June 2001, Davos, Switzerland, pp.305-318, 2001.
- Sassa, K., Wang, G., Fukuoka, H.: Mechanism of transition from slide to flow in granular soils. Proc. ISSMGE TC-11 (Landslides) & ATC-9, Trabzon, Turkey, pp.1-19, 2001.
- Sassa, K., Fukuoka, H., and Kamai, T.: Inca's World Heritage "Machu Picchu" at Landslide Risk. Proc. ISSMGE TC-11 (Landslides) & ATC-9, Trabzon, Turkey, pp.259-272, 2001.
- Fukuoka, H., Y. Tamari, G. Furuya, H. Fujikawa: Application of Realtime Kinematic GPS to Landslide Monitoring. ISSMGE TC-11 (Landslides) Proceedings of Conference on Transition from Slide to Flow - Mechanisms and Remedial Measures -, 25-26 August 2001, Trabzon, Turkey, pp.211-220, 2001.
- Sassa, k. (editor.): Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. Proc. UNESCO/IGCP Symp., 15-19 January 2001, Tokyo.268p, 2001.
- Sassa, K., Fukuoka, H., and Kamai, T.: Inca's World Heritage "Machu Picchu" at Landslide Risk. Proc. ISSMGE TC-11 (Landslides)&ATC-9, Trabzon, Turkey, pp.259-272, 2001.
- K. Sassa, G. H. Wang, H. Fukuoka, D. Vankov, and Y. Okada: Evaluation of dynamic shear characteristics in landslides. Proceedings of the International Conference on Landslides - Causes, Impacts and Countermeasures. June 2001, Davos, Switzerland, pp.305-318, 2001.
- Sassa, K.: Mechanism of Rapid and Long Traveling Flow Phenomena in Granular Soils. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.11-29, 2002.
- Wang, G., and Sassa, K.: Pore pressure generation and motion of rainfall-induced landslides in laboratory flume tests. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.45-60, 2002.
- F.W. Wang, K. Sassa, T. Okuno, T. Matsumoto, T. Yamakami, Y. Kikuno: Experimental study on mechanism of flowslides induced by seismic loading through shaking table tests. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.73-84, 2002.
- Konagai, K., Johansson, J., Marorca, P., Yamamoto, T., Miyajima, M., Uzuoka, R., Pulido, Nelson E., Duran Freddy C., Sassa, K., Fukuoka, H.: Landslides caused by the January 23, off the Coast of El Salvador Earthquake. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.139-154, 2002.
- Okada, Y., Sassa, K., Fukuoka, H.: Pore pressure behavior within shear zone in sandy soils by means of ring shear tests. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.203-210, 2002.
- F.W. Wang, T. Matsumoto, Y. Kikuno, T. Yamakami, K. Sassa, T. Okuno: Experimental study on mechanisms of flowslides induced by rainfall through flume tests. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.211-219, 2002.
- Greif, V., Sassa, K., and Fukuoka, H.: Bitchu-Matsuyama castle rock slope monitoring and failure mechanism analysis using distinct element method. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.329-338, 2002.

- Youn, H., Fukuoka, H., Greif, V., Tamari, Y., and Sassa, K.: Estimation of temperature change component in monitoring data of rock slope movement. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.459-468, 2002.
- Sassa, K., Fukuoka, H., Shuzui, H., Hoshino, M.: Landslide risk evaluation in the Machu Picchu world heritage. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.469-488, 2002.
- Shoaei, Z., Sassa, K.: The effects of different direction of earthquake acceleration on slope instability due to the generated pore pressure on saturated soil. Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. 21-25 January 2002, Kyoto, Japan, pp.661-690, 2002.
- R.C. Sidle.: Watershed challenges for the 21<sup>st</sup> century: a global perspective for mountainous terrain, Proceedings RMRS-P-13, USDA Forest Serv., Rocky Mountain Res. Station, Fort Collins, Colorado, pp.45-56, 2000.
- R.C. Sidle: Forestry practices in steep terrain: implications for floods, landslides, and related natural hazards, In: Proc. of International Conference on Socio-economic Strategies for Central Vietnam at the Dawn of the Twenty-first Century, pp.225-230, 2000.
- R.C. Sidle: Forestry Practices and Erosion Processes -Truths, Myths and Uncertainties, Proc. of International Symp.on Erosion Management, Taiyuan, China, April, pp.26-30, 2001.
- R.C. Sidle: The role of forests in enhancing slope stability, In: Multiple Functions and Benefits of Forests in Taiwan. Research Center for Conservation of Water Resources and Disaster Prevention, National Chung-Hsing Univ., Taichung, Taiwan, pp.53-64, 2001.
- R.C. Sidle and A.S. Dhakal. 2003. Recent advances in the spatial and temporal modeling of shallow landslides. In: Integrated Modelling of Biophysical, Social and Economic Systems for Resource Management Solutions, Proceedings of MODSIM 2003, vol. 2, pp. 602-607, Modelling and Simulation Society of Australia and New Zealand, Inc., Canberra, Australia.
- T.K. Manik and R.C. Sidle. 2003. Rainfall spatial distribution in Sumber Jaya Watershed, Lampung, Indonesia. In: Integrated Modelling of Biophysical, Social and Economic Systems for Resource Management Solutions, Proceedings of MODSIM 2003, vol. 2, pp. 566-571, Modelling and Simulation Society of Australia and New Zealand, Inc., Canberra, Australia.
- Kamai, T. and K.Kobayashi: Earthquake risk assessments of fill-slope instability in urban residential areas in Japan, Landslides in research, theory and practice (Proc. 8th Int. Symp. Landslide), pp.565-570, 2000.
- Kamai, T. and H.Shuzui: Slope instability mapping and design of landslide protection work for conservation of mountainous paddy fields in central Japan, Proc. UNESCO/IGCP Symp. Landslide Risk Mitigation and Protection of Cultural and Natural Heritage, pp.155-163, 2001.
- Kamai, T. and H.Shuzui: Long-traveling landslide on Enperor's tomb mound of 6th century, Proc. Int. Symp. Landslide Risk Mitigation and Protection of Cultural and Natural Heritage, pp.233-244, 2001.
- Iai, S., Ichii, K., Sugano, T., Nozu, A.: Post-earthquake actions for restoration of port structures, Proc. PIANC2002, 30th International Navigation Congress, S1CP5, 2002.9, pp.99-111, CD-ROM
- Iai, S.: Seismic performance-based design of port structures - An international Guidelines, SEWC2002, Proc. Structural Engineers World Congress, 2002.10, P1-1-3, pp.1-8, CD-ROM
- Iai, S.: International standard (ISO) on seismic actions for designing geotechnical works - An overview, pp.1-8, Proc. 11th International Conference on Soil Dynamics and Earthquake Engineering (11th ICSDEE) and the 3rd International Conference on Earthquake Geotechnical Engineering (3rd ICEGE), Berkely, 2004
- Kitade, K., Kawamata, Y., Ichii, K., and Iai, S.: Analysis of laterally loaded pile groups using 2-D FEM, Proc. 11th International Conference on Soil Dynamics and Earthquake Engineering (11th ICSDEE) and the 3rd International Conference on Earthquake Geotechnical Engineering (3rd ICEGE), Berkely, 2004
- M. Mimura, K. Takeda, K. Yamamoto and T. Fujiwara: Long-term Settlement of Pleistocene Marine Deposits in Osaka Bay Due to Offshore Reclamation, Proc. 2<sup>nd</sup> World Engineering Congress, Geotechnical Engineering and Transportation Volume, pp.17-24, 2002.
- M. Mimura and K. Yamamoto: Development of Urban Geo-Database in Kansai and Assessment of Liquefaction Potential, Geotechnical Investigation in the Information Era, Proc. of the 2<sup>nd</sup> IKRAM Int. Geotech. Conf., pp.235-252, 2002.
- M. Mimura and W. Y. Jang: Evaluation of Long-term Settlement of Pleistocene Deposits in Osaka Bay, Proc. Int. Symp. on Soft Soil Engineering in Coastal Areas, pp.145-150, 2002.
- M. Mimura: Characteristics of Some Japanese Natural Sands - Data from Undisturbed Frozen Samples-, Proc. Int. Workshop on Characterization and Properties of Natural Soils, Vol. 2, pp.1149-1168, 2002.
- M. Mimura, W. Jang, K. Takeda, K. Yamamoto and T. Fujiwara: Evaluation of Time-dependent Compression of the Structural Osaka Bay Pleistocene Clays, Proc. of the Sino-Japanese Symposium on Geotechnical Engineering in Urban Construction, pp.154-161, 2003.
- M. Mimura and W. Jang: Long-term Settlement of Reclaimed Marine Structural Pleistocene Clay Deposits, Proc. 2<sup>nd</sup> Int. Conf. On Advances in Soft Soil Engineering and Technology, pp.335-351, 2003.

### (A3) Abstract refreed papers (17 papers)

(papers in Japanese, 1)

- Suwa, H.: Is it possible to monitor the stage of debris-flow occurrence from glaciers, Proc. Inter. Workshop on Debris Flow Monitoring, Federal Office for Water and Geology of Swiss National Hydrological Survey in Bern-Ittigen, Switzerland, pp.22-25, 2001.
- Gonghui Wang & Kyoji Sassa: Ring shear tests on mixtures of fine sand and loess. Forests and Society: The Role of Research, "POSTER ABSTRACTS", Proceedings of XXI IUFRO World Congress, Kuala Lumpur, Malaysia. Vol.3, pp.464-465, 2000.
- Fawu Wang & Kyoji Sassa: A modified Geotechnical Simulation Model for the Quasi-three Dimensional Prediction of Landslide Motion. The Role of Research, "POSTER ABSTRACTS", Proceedings of XXI IUFRO World Congress, Kuala Lumpur, Malaysia. Vol. 3, pp.464-465, 2000.
- Gonghui Wang & Kyoji Sassa: Role of fines in the initiation and motion of fluidization landslides based on ring-shear tests. "Geophysical Research Abstracts", 25<sup>th</sup> General Assembly of European Geophysical Society, Vol. 2, 2000, NH 7.01, 2000.
- S. Noguchi, Y. Tsuboyama, R.C. Sidle, T. Kubota, and M. Fujieda: Spatial distribution of soil moisture in a small forested catchment. 111th Ann., Meeting of the Japanese Forestry Society, p.364(abstract, in Japanese), 2000.
- H. Elsenbeer and R. Sidle: Hydrological flow-paths and water chemistry in key forested environments. In: Forests and Society: The Role of Research, Vol. 1: 4, Proc. XXI IUFRO World Congress, Federal Forest Res. Inst., Vienna, Austria., 2000.
- R.C. Sidle and K.F.A. Lo.: Effects of forestry activities on surface erosion and slope stability. In: Forests and Society: The Role of Research, vol. 1, Proc. XXI IUFRO World Congress, Federal Forest Res. Inst., Vienna, Austria.pp.5-6, 2000.
- R.C. Sidle and T. Gomi: Interactions of woody debris and sediment in headwater channels of coastal Alaska.: In: Forests and Society: The Role of Research, vol. 2, Proc. XXI IUFRO World Congress, Federal Forest Res. Inst., Vienna, Austria, pp.336, 2000.
- S. Noguchi, Y. Tsuboyama, R.C. Sidle, T. Kubota, T. Tsurita, and M. Fujieda.: Spatial distribution of surface soil moisture in a small forested catchment., EOS Trans., Am. Geophys. Union 81(48), 2000.
- A. S. Dhakal, R.C. Sidle, and W. Wu.: Hydrologic integration of forest roads for distributed slope stability model., EOS Trans., Am. Geophys. Union 81(48), F487, 2000.
- T. Gomi, R.C. Sidle, R.D. Woodsmith, and M.D. Bryant.: Channel steps and reach morphology in headwater streams of southeast Alaska., EOS Trans., Am. Geophys. Union, 2001.
- R.C. Sidle, Y. Tsuboyama, and S. Noguchi: Hydrogeomorphic characterization of forest catchment response (invited poster), EOS Trans., Am. Geophys. Union, 2001.
- R.C. Sidle, Y. Tsuboyama, and S. Noguchi.: Quantification of the hydrogeomorphic concept of stormflow generation in

headwater streams: a first approximation.: EOS Trans., Am. Geophys. Union., 2001.

- A.S. Dhakal and R.C. Sidle.: Distributed and dynamic modeling of landslides related to forest management, Symposium on Small Stream Channels and their Riparian Zone, Feb. 19-20, Univ. of British Columbia, Vancouver, pp.35, 2002.
- Kamai, T. and H.Shuzui: Earthquake-induced landslide on Emperor's tomb mound of 6th century, Proc. Field Workshop on Landslides and Natural/Cultural Heritages in Turkey, pp.237-246, 2001.
- M. Mimura: Long-term Settlement of Reclaimed marine Structural Pleistocene Clay Foundations in Osaka Bay, Japan, Special lecture, Proc. Int. Conf. on Coastal Geotechnical Engineering in Practice, IC-Atyrau, pp.19-30, 2002.
- M. Mimura and W. Jang: Description of Time-dependent Behavior of the Aged Stiff Clays, Proc. of Korea Japan Joint Workshop, Characterization of Thick Clay Deposits, Reclamation and Port Construction, pp.239-248, 2003.

**(B) Research reviews (1 review)**

(reviews in Japanese, 6)

- Suwa, H.: The 1984 earthquake-induced landslides and the debris avalanche at Mount Ontake, Field Excursion guide-Book B4 of 5th Inter. Conf. on Geomorphology, pp.37-54, 2001.

**(C) Books (11 books)**

(books in Japanese, 12)

- Iai, S. (ed.), Iai, S., Bernal, A., Blazquez, R., Burcharth, H.F., Dickenson, S.E., Ferritto, J., Finn, W.D.L., Ichii, K., McCullough, N.J., Meeuwissen, P.W.H., Memos, C.D., Priestley, M.J.N., Silvestri, F., Simonelli, A.L., Steedman, R.S., Sugano, T.: Seismic Design Guidelines for Port Structures, International Navigation Association (PIANC), Chapter 1 Introduction, Chapter 2 Earthquakes and Port Structures, Chapter 3 Design Philosophy, Chapter 4 Damage Criteria, Chapter 5 Seismic Analysis, TC1 Existing codes and guidelines, TC2 Case Histories, TC7 Analysis Methods, Balkema, pp.3-6, pp.7-22, pp.23-30, pp.31-54, pp.55-76, pp.77-89, pp.91-126, pp.307-369, 2001.
- Chigira, M.: The Effects of environmental changes On Weathering, Gravitational Rock Deformation, and Landslides. In Sidle, R.C. ed. Environmental change and geomorphic hazards in forests. CABI Publishing, New York, pp101-122., 2002.
- Kanaori, Y., Tanaka, K., and Chigira, M. eds.: Engineering Geological Advances in Japan for the New Millennium. Developments in Geotechnical Engineering, Elsevier., 350p, 2000.
- Kyoji Sassa (Editor): Landslide Risk Mitigation and Protection of Cultural and Natural Heritage. Proceedings of UNESCO/IGCP Symposium, 15-19 January 2001, Tokyo, Japan, p.267, 2001.
- Kyoji Sassa (Editor): Proceedings of International Symposium on Landslide Risk Mitigation and Protection of Cultural and

- Natural Heritage. 21-25 January 2002, Kyoto, Japan, p.750, 2002.
- R.C. Sidle (editor): Environmental Change and Geomorphic Hazards in Forests, IUFRO Research Series, No.9, AB International Publishing, Oxen, UK, p.241, 2002.
- R.C. Sidle and W. Wu.: Evaluation of the Temporal and Spatial Impacts of Timber Harvesting on Landslide Occurrence. In: M.S. Wigmosta and S.J. Burges (eds.) Land Use and Watersheds: Human Influence on Hydrology and Geomorphology in Urban and Forest Areas. Water Science and Application Vol. 2, American Geophysical Union, Washington, D.C., pp.179-193, 2001.
- R.C. Sidle: Geomorphologic Hazards and Forest Environmental Change - an Introduction. In: R.C. Sidle (ed.) Environmental Change and Geomorphic Hazards in Forests, IUFRO Research Series, No.9, CAB International Press, Oxen, UK., pp.1-6, 2002.
- R.C. Sidle and A.S. Dhakal: Potential Effects of Environmental Change on Landslide Hazards in Forest Environments. In: R.C. Sidle (ed.) Environmental Change and Geomorphic Hazards in Forests, IUFRO Research Series, No. 9, CAB International Press, Oxen, UK., pp.123-165, 2002.
- R.C. Sidle: Future Directions for Geomorphologic Hazard Analysis in Forests. In: R.C. Sidle (ed.) Environmental Change and Geomorphic Hazards in Forests, IUFRO Research Series, No. 9, CAB International Press, Oxen, UK., pp.227-234, 2002.
- Iai, S.: Port Structures, pp.27-1 - 27-21, Chapter 27, in Chen, W.F, and Scawthorn, C. eds, Earthquake Engineering Handbook, CRC Press., 2002
- (D) Research papers in bulletins and reports (26 papers)**  
(papers in Japanese, 12)
- Kamon, M., Katsumi, T., Inazumi, S. and Rajasekaran, G.: Effect of landfill cover system on water interception, *Annals Disas. Prev. Res. Inst., Kyoto Univ.* , No.43 B-2 , pp.463-472 , 2000.
- Rajasekaran, G., Kamon, M., Katsumi, T. and Inazumi, S.: Evaluation of waste sludge as landfill cover material, *Annals Disas. Prev. Res. Inst., Kyoto Univ.* , No.43 B-2, pp.515-523, 2000.
- Lin, L., Katsumi, T., Kamon, M., Benson, C.H., Onikata, M. and Kondo, M.: Evaluation of chemical-resistant bentonite for landfill barrier application *Disaster Prevention Research Institute Annals, Kyoto University, No.43 B-2, pp.525-533, 2000.*
- Kamon, M., Zhang, H. and Katsumi, T.: Microbial redox effects on the attenuation of Fe and Zn in landfill leachate plume *Disaster Prevention Research Institute Annals, Kyoto University, No.44 B-2 , pp.103-116 , 2001.*
- Kamon, M., Jian, W., Inui, T., Katsumi, T., Kanayama, M. and Morimoto, T.: Suitability assessment of two landfill clay liners, *Annals Disas. Prev. Res. Inst., Kyoto Univ.* , No.44 B-2, pp.117-127, 2001.
- Kamon, M., Inazumi, S., Katsumi, T. and Inui, T.: Long-term hydraulic conductivity and consolidation behavior of compacted sludges using geotechnical centrifuge, *Annals Disas. Prev. Res. Inst., Kyoto Univ.* , , No.44 B-2, pp.129-140, 2001.
- Kamon, M., Jeoung, J.-H., Boutouil, M. and Inui, T.: Geo-environmental assessment on the sludge treated with low alkaline additives, *Annals Disas. Prev. Res. Inst., Kyoto Univ.*, No.44 B-2, pp.149-154, 2001.
- Kamon, M. Endo, K. and Katsumi, T.: Influence of dense non-aqueous phase liquids properties and geotechnical conditions on the migration processes in sandy media, *Annals Disas. Prev. Res. Inst., Kyoto Univ.* , No.44 B-2, pp.171-184, 2001.
- Bardet, J. P., T. Tobita, K. Ichii, and A. Rogers: Site response analysis at the vertical arrays of the Cerritos College Police Station and San Bernadino Main Fire Station, A report to USGS on Collaborative Research between Georisk Associates, Inc. and the University of Southern California, 2001.
- Bardet, J. P., T. Tobita: A computer program for Nonlinear Earthquake site Response Analyses of layered soil deposits (NERA), A report to University of Southern California, Civil Engineering Department, 2001.
- Kazuo Okunishi, Makoto Musashino and Mieko Sonoda: A Preliminary report on the landslides and other ground surface movements induced by 1999 Chichi earthquake, Taiwan, *Annals of the Disas. Prev. Res. Inst., Kyoto Univ.*, No. 43 B-1, pp.161-168, 2002.
- Gonghui Wang & Kyoji Sassa: Fluidization Behavior of Sands Based on Ring Shear Tests - Effects of Grain Size and Fine-Particle Content. *Annals of the Disaster Prevention Research Institute, Kyoto University, No.43 B-1, pp.141-160, 2000.*
- Fawu Wang & Kyoji Sassa: A Modified Geotechnical Simulation Model for the Areal Prediction of Landslide Motion. *Annals of the Disaster Prevention Research Institute, Kyoto University, No.43 B-1, pp.129-139, 2000.*
- Greif, V., Sassa, K., and Fukuoka, H.: Failure and triggering mechanism analysis of the Bitchu-Matsuyama castle rock using distinct element method. *Annals of the Disaster Prevention Research Institute Kyoto University, Vol. 44, pp.7-14, 2001.*
- Trandafir, A.C., Sassa, K. and Fukuoka, H.: A computational method for residual excess pore pressure response in sand under cyclic loading. *Disaster Prevention Research Institute Annals, Kyoto University, No.45 B, pp.61-69, 2002.*
- Gonghui Wang & Kyoji Sassa: Experimental Study on the Shearing Behavior of Saturated Sandy Silts Based on Ring Shear Tests, *Annals of the Disaster Prevention Research Institute, Kyoto University, No.44 B-1, pp.15-24, 2001.*
- Hiura, H., G. Furuya, H. Fukuoka, and K. Sassa: Investigation of the Groundwater Distribution in a Crystalline Schist Landslide Zentoku, Shikoku Island, Japan, General Joint Research Project 11G-11 of Disaster Prevention Research Institute, Kyoto University, "Study on mechanism of landslide

- movement and deformation of landslide mass” (Principal Investigator: K. Araiba), pp.59-64, 2000.
- Furuya, G., K. Sassa, H. Hiura, H. Fukuoka, and F.W. Wang: The Mechanism of Creep Movement Caused by Landslide Activity and Underground Erosion in Crystalline Schist: A Case Study at Zentoku Landslide, Shikoku Island, Report of the General Joint Research Project 11G-17 of Disaster Prevention Research Institute, Kyoto University, “Study on creeping mechanism of Tertiary landslides and crystalline-schist landslides” (Principal Investigator: H. Marui), pp.49-55, 2000.
- Sassa, K.: Earthquake-Resisting Technologies for Geo-hazards - Landslide Hazards Assessment in Lishan, Xi’an, China, Proceedings of the Second Multi-lateral Workshop on Development of Earthquake and Tsunami Disaster Mitigation Technologies and their Integration for the Asia-Pacific Region. EDM Technical Report Series No. 4, Kobe, Japan, pp.67-72, 2000.
- Lin, Z., Sassa, K., Zhang, Z., and Liu, Z.: Terrain Subsidence and Low Angles Slides Triggered by Seismic Slumping and “Liquefaction” of Loessial Soil Masses during Strong Earthquake. Proceedings of the Second Multi-lateral Workshop on Development of Earthquake and Tsunami Disaster Mitigation Technologies and their Integration for the Asia-Pacific Region. EDM Technical Report Series No. 4, Kobe, Japan, pp.93-98, 2000.
- Sassa, K., Fukuoka, H., and Wang, F., Furuya, G., Nagumo, M., Igarashi, T., Chigira, M., Furuzawa, T., Shimada, M., Okunishi, K., Towhata, I., and Shuzui, H.: Earthquake-Resisting Technology for Landslides - Landslide Hazards Assessment in Lishan, Xi’an, China. Proceedings of the third Multi-lateral Workshop on Development of Earthquake and Tsunami Disaster Mitigation Technologies and their Integration for the Asia-Pacific Region. EDM Technical Report Series No. 4, Kobe, Japan, pp.105-111, 2001.
- Lin, Z., Sassa, K., Bai, M., and Zhang, Z.: Undrained Loading and Soil Liquefaction in the Evolution of Low Angle Long Travel Distance Landslides in Regions of Loessial Terrain. Proceedings of the third Multi-lateral Workshop on Development of Earthquake and Tsunami Disaster Mitigation Technologies and their Integration for the Asia-Pacific Region. EDM Technical Report Series No. 4, Kobe, Japan, pp.113-118, 2001.
- Kazuo Okunishi, Hiroshi Suwa, Takahisa Mizuyama, Takashi, Okimura and Shigekazu Mezaki: Recent Problems of Landslide and Other Environmental Hazards in the Natural and Cultural Heritages in Sichuan, China, Proceedings of the International Symposium on Landslide Mitigation and Protection of Cultural and Natural Heritage, Kyoto, 2002, pp.295-305, 2002.
- M. Mimura and W. Jang: Evaluation of Time-dependent Behavior of Osaka Pleistocene Clay by Elasto-viscoplastic Finite Element Analysis, Annuals of Disaster Prevention Research Institute, Kyoto University, No. 46 B, pp.127-142, 2003.
- Trandafir, A.C., Sassa, K. and Fukuoka, H. (2003). Assessment of undrained seismic displacements on shear surfaces in saturated cohesionless soils; Annuals of Disaster Prevention Research Institute, Kyoto University; No. 46 B (in press).
- Trandafir, A.C., Sassa, K. and Fukuoka, H. (2003). Prediction of undrained cyclic shear response of saturated sand in the ring shear apparatus; In Proceedings of the 42nd Annual Conference of Japan Landslide Society, Toyama, Japan; pp. 251-252.

## **(E) Textbooks for lectures**

(textbooks in Japanese, 6)

## **(G1) Papers presented at research meetings (32 papers)**

(papers in Japanese, 70)

- Kamon, M.: Ground improvement and their environmental impacts, Proc. the Seminar on Integrated Engineering, pp.87-94, 2000.
- Kamon, M., Zhang, H. and Katsumi, T.: Mobility of zinc and iron in landfill sites under anaerobic conditions, Proceedings of the Second International Summer Symposium, JSCE, pp.237-240, 2000.
- Rajasekaran, G., Inazumi, S., Katsumi, T. and Kamon, M.: Waste sludge landfill cover materials and water balance analysis, Proceedings of the Second International Summer Symposium, JSCE, pp.245-248, 2000.
- Kamon, M., Katsumi, T., Kanayama, M., Jian, W. and Morimoto, T.: Stability of solid waste landfills along clay liners, Proceedings of the Second International Summer Symposium, JSCE, pp.249-252, 2000.
- Kamon, M., Jian, W., Inui, T., Katsumi, T., Kanayama, M. and Morimoto, T.: Shear strength properties of two landfill clay liners, Proc. First Korea-Japan Joint Seminar on Geoenvironmental Engineering, pp.8-15, 2001.
- Kamon, M., Inui, T. and Katsumi, T.: Experimental study on the environmental impact due to the wastes in geotechnical applications, Proc. First Korea-Japan Joint Seminar on Geoenvironmental Engineering, pp.24-30, 2001.
- Kamon, M., Inazumi, S., Katsumi, T. and Inui, T.: Waste sludge applicability and water balance analysis of landfill cover system, Proc. First Korea-Japan Joint Seminar on Geoenvironmental Engineering, pp.31-38, 2001.
- Kamon, M., Zhang, H., Katsumi, T. and Sawa, N.: Redox reactions in landfill site and their geotechnical significance, Proc. First Korea-Japan Joint Seminar on Geoenvironmental Engineering, pp.39-50, 2001.
- Mimura, M. and Sumikura, Y.: Deformation analysis of Pleistocene clay deposits due to large-scale reclamation - Propagation of excess pore water pressure under various sets of seaside boundary-, Proc. First Korea-Japan Joint Seminar on

- Geoenvironmental Engineering, pp.51-57, 2001.
- Kamon, M., Boutouil, M., Jeoung, J.-H. and Inui, T.: Experimental study on the stabilization of dredged sludge with low alkaline additives, Proc. First Korea-Japan Joint Seminar on Geoenvironmental Engineering, pp.78-83, 2001.
- Kamon, M., Endo, K. and Katsumi, T.: Column model test and evaluation of permeability-saturation pressure relations for immiscible two-phase flow in sandy media, Proc. First Korea-Japan Joint Seminar on Geoenvironmental Engineering, pp.106-114, 2001.
- M. Kamon, M. Boutouil, J.-H. Jeoung, T. Inui: Treatment of dredged sludge using low alkalinity additives, Japanese Geotechnical Society, pp.2573-2574, 2001.
- Kamon, M., Jian, W., Inui, T. and Katsumi, T.: Strength behavior of two landfill clay liners, Proceedings of the Third International Summer Symposium, JSCE, pp.181-184, 2001.
- Kamon, M., Boutouil, M., Jeoung, J.-H. and Inui, T.: Environmental behavior of sludge solidification/ stabilization by low alkalinity additives, Proceedings of the Third International Summer Symposium, JSCE, pp.241-244, 2001.
- Iai, S. et al.: Seismic design guidelines for port structures, Report of Working Group 34 of the Maritime Navigation Commission, PIANC, pp.1-43, 2001.
- Chigira, M.: Weathering, landslide, and hazard mapping in granitic area. Proceedings of the Symposium on Geohazards organized by The Geological Society of Korea, Seoul, pp4-26, 2003.
- Suwa, H.: Repetition of debris-flow disaster on sunny days in North-East Pakistan, Transactions, Japanese Geomorphological Union, 22(4), C-231, 2001.
- Suwa, H.: Comparison of several events of earthquake-induced landslide, Transactions, Japanese Geomorphological Union, 22(4), C-231, 2001.
- Gonghui Wang & Kyoji Sassa: Fluidization behavior of silty soils in ring shear tests, The Japan Landslide Society, pp.287-290, 2000.
- Fawu Wang, Kyoji Sassa: Geotechnical Simulation on the Sumikawa Landslide-Debris Flow. The Japan Landslide Society, pp.533-536, 2000.
- Gonghui Wang, Kyoji Sassa, & Hiroshi Fukuoka: Excess Pore Pressure Built-up within the Shear Zone of Silty Soils Based on Ring Shear Tests. The Japan Landslide Society, pp.167-170, 2001.
- Greif, V., Sassa, K., and Fukuoka, H.: Failure Mechanism Analysis of the Bitchu-Matsuyama Castle Rock Using Distinct Element Method. Proceedings of the Conference of Japan Landslide Society, Maebashi, Japan, pp.231-234, 2001.
- Greif, V., Sassa, K., and Fukuoka, H.: Monitoring of the Bitchu-Matsuyama castle rock. Proc. of the 40<sup>th</sup> Annual Conf. of Japan Landslide Society, Maebashi, Japan, pp.597-600, 2001.
- Kazuo Okunishi: Japanese Approaches to Landslides - Sarukuyoji Landslide-: Transactions of Japanese Geomorphological Union, Vol. 22, No. 4, C-178, 2002.
- Kazuo Okunishi: Environmental Impact of Dam Construction in Tectonically Active Areas, Transactions of Japanese Geomorphological Union, Vol. 22, No.4, C-178, 2002.
- Iai, S.: Analysis of soil deformation around a cylindrical rigid body, US-Japan Seminar Seismic Disaster Mitigation in Urban Area by Geotechnical Engineering, Anchorage, Alaska, pp.739-746, CD-ROM, 2002
- Iai, S. and Tobita, T.: Analysis of soil-pile interaction, Proc. 8th U.S.-Japan Workshop on Earthquake Resistant Design of Lifeline Facilities and Countermeasures against Liquefaction, VIII-5, pp.1-8, CEER, 2002
- Iai, S.: Bases for design of structures - Seismic actions for designing geotechnical works - ISO/WD23469, SC2-003, 58<sup>th</sup> JSCE Annual Conference, CD-ROM, 2003
- Tewodros Ayele, Kyoji Sassa, and Hiroshi Fukuoka (2003). The Influence of Mineralogy on the Stress - Strain (Displacement) Behaviour of Granular Soils. Proceedings of Landslide Society Annual Conference - 2003, pp. 71-74.
- Gratchev IB, Sassa K, Fukuoka H. (2003). Behaviour of bentonite-enhanced sands under dynamic loading in a ring shear apparatus. In: Proceedings of the Fifth Conference "Sergeevskie chteniya" on environmental geoscience, engineering geology, and hydrogeology. Moscow. pp. 7-11.
- Gratchev IB, Sassa K, Fukuoka H. (2003). Effect of salt concentration and pH of pore water on liquefaction on clayey sands under dynamic loading in a ring shear apparatus. In: Proceedings of the 42nd Annual Conference of Japan Landslide Society. Toyama, pp. 285-288.
- Y.Hong, H.Hiura, H. Maeda, G. Furuya, H. Fukuoka, K. Sassa (2002). Study on the creating warning and evacuation system from landslide disaster in use of the data of observation system, Proc. of Interpraevent 2002 in the Pacific Rim, Matsumoto pp.695-703.

## **(G2) Non-refreed papers**

(papers in Japanese, 5)



## 6.2.4 Division of Fluvial and Marine Disasters

### (A1) Complete refreed papers (14 papers) (papers in Japanese, 16)

- Takahashi, T. and Tsujimoto, H.: A Mechanical Model for Merapi Type Pyroclastic Flow, *Journal of Volcanology and Geothermal Research*, Vol.98, pp.91-115, 2000.
- Takahashi, T.: Mechanics and Simulation of Snow Avalanches, Pyroclastic Flows and Debris Flows, Special Publication No.31 of the International Association of Sedimentology, pp.11-43, 2001.
- Takahashi, T.: Process of Occurrence, Flow and Deposition of Viscous Debris Flow, River, Coastal and Estuarine Morpho-Dynamics, Springer, pp.93-118, 2001.
- Takahashi, T., Nakagawa, H., Satofuka, Y. and Kawaike, K.: Flood and Sediment Disasters Triggered by 1999 Rainfall in Venezuela; A River Restoration Plan for an Alluvial Fan, *Journal of Natural Disaster Science*, Vol.23, No.2, pp.65-82, 2001.
- Roshan SHRESTHA, Yasuto TACHIKAWA and Kaoru TAKARA: A new method to define flow direction using grid digital elevation models, *Annual Journal of Hydraulic Engineering, JSCE*, vol. 47, pp. 241-246, 2003.
- Y. Ichikawa, T. Hori, M. Shiiba, Y. Tachikawa, K. Takara: Investigation on the scale of rainfall spatial variability to be considered in runoff simulation, *Journal of Hydroscience and Hydraulic Engineering*, vol. 20, no. 2, pp. 207-216, 2002.
- Roshan, SHRESTHA, Yasuto TACHIKAWA and Kaoru TAKARA, Effects of Forcing Data Resolution in River Discharge Simulation, *Annual Journal of Hydraulic Engineering, JSCE*, vol. 46, pp. 139-144, 2002.
- Kawaike, K., Inoue, K., Toda, K. and Nakai, T.: Effects of Sediment Yield on Inundation Flow in a Hillside City, *Journal of Hydroscience and Hydraulic Engineering*, Vol.20, No.1, JSCE, pp.151-166, 2002.
- Kitano, T. and Mase, H.: Wave-induced porewater pressure in a seabed with inhomogeneous permeability, *Ocean Eng.*, Vol.28, No.28, pp.279-296, 2001.
- Mase, H., Kosho, K. and Nagahashi, S.: Wave runup of random waves on a small circular pier on sloping seabed, *Jour. Waterway, Port, Coastal, and Ocean Eng.*, Vol.127, No.4, pp.192-199, 2001.
- Mase, H.: Multi-directional random wave transformation model based on energy balance equation, *Coastal Eng. Jour.*, Vol.43, No.4, pp.317-337, 2001.
- Hua-Jun Li, Sau-Lou J. Hu and Takayama T.: Optimal-Active control of wave-induced vibration of offshore platform, *China Ocean Engineering*, Vol.15, No.1, pp.1-14, 2001.
- Sheng Dong, Hua-Jun Li and Takayama T.: Suppression of wave-excited vibration of offshore platform by use of tuned

liquid dampers, *China Ocean Engineering*, Vol.15, No.2, pp.165-176, 2001.

Mase, H., Memita, T., Yuhi, M. and Kitano, T.: Stem waves along vertical wall due to random wave incidence, *Coastal Eng. Jour.*, Vol.44, No.4, pp.339-350, 2002.

### (A2) Refreed papers (16 papers) (papers in Japanese, 51)

- Takahashi, T.: Initiation and Flow of Various Types of Debris-Flow, *Debris-Flow Hazards Mitigation*, Balkema, pp.15-25, 2000.
- Takahashi, T., Nakagawa, H. and Satofuka, Y.: Newtonian Fluid Model for Viscous Debris-Flow, *Debris-Flow Hazards Mitigation*, Balkema, pp.295-262, 2000.
- Takahashi, T. and Satofuka, Y.: Simulation Model for Channel Variation in Braided Channel Reach, *Proc. 12th Congress of APD-IAHR, Bangkok*, Vol.1, pp.45-54, 2000.
- Zhang, X. and Takahashi, T.: Shear Stress and Percentage of Initiating Particles on the Bed, *Proc. 5th International Symposium on Stochastic Hydraulics, Beijing*, pp.325-331, 2000.
- Satofuka, Y., Takahashi, T., Nakagawa, H.: Prediction of Sedimentation Process in a Reservoir, *Proc. 2nd IAHR Symposium on River, Coastal and Estuarine Morpho-Dynamics*, pp.773-782, 2001.
- Y. Tachikawa, Y. Komatsu, K. Takara and M. Shiiba: Stochastic modeling of error structure of real-time predicted rainfall and rainfall field generation, *IAHS, Publication no. 282*, pp. 66-73, 2003.
- R. K. Shrestha, Y. Tachikawa and K. Takara: Model behavior of distributed hydrological modeling with different forcing data resolutions, *IAHS, Publication no. 282*, pp. 169-176, 2003.
- T. A. Kimaro, Y. Tachikawa and K. Takara: Evaluating land use change effects on floods peak using distributed rainfall runoff model in Yasu River, Japan, in *Weather Radar Information and Distributed Hydrological Modelling* (ed Y. Tachikawa et al.), *IAHS, Publication no. 282*, pp. 241-248, 2003.
- T. Kojima and K. Takara: A grid-cell based distributed flood runoff model and its performance, *IAHS, Publication no. 282*, pp. 234-240, 2003.
- T. A. Kimaro, Y. Tachikawa and K. Takara: The potential for use of ISBA land surface scheme in hydrological modeling, *Proceedings of the 1<sup>st</sup> International Conference on Hydrology and Water Resources in Asia Pacific Region, Kyoto, Japan*, 13-15, Mar. 2003, *Asia Pacific Association of Hydrology and Water Resources*, Vol. 1, pp.255-260, 2003.
- R. K. Shrestha, R.Jha and K. Takara: GIS assisted water resources planning in mountainous catchment, Nepal, *Proceedings of the 1<sup>st</sup> International Conference on Hydrology and Water Resources in Asia Pacific Region, Kyoto, Japan*, 13-15, Mar. 2003, *Asia Pacific Association of Hydrology and Water Resources*, Vol. 2, pp.939-944, 2003.

- P. T. A. Dao, L. X. Tuan, K. Takara and Y. Munekage: Water resource management in Estuarine areas, Proceedings of the 1<sup>st</sup> International Conference on Hydrology and Water Resources in Asia Pacific Region, Kyoto, Japan, 13-15, Mar. 2003, Asia Pacific Association of Hydrology and Water Resources, Vol.2, pp.977-983, 2003.
- Takara, K. and Sayama, T.: A physically-based rainfall-sediment-runoff model in a catchment scale -Application to the upper Brantas River basin, Indonesia-, Proceedings of Third International Conference on Water Resources and Environment Research (ICWRER2002), Dresden University of Technology, Dresden, Germany, Vol. 2, 22-25 July 2002, (ed.) Gert H. Shumitz, 2002, pp. 257-261, 2002.
- Toda, K., Inoue, K., Tokunaga, T. and Kawaike, K.: Flood Hazard Analysis in River Recreation Site due to Heavy Rainfall, Hydraulic Information Management, WIT Press, pp.143-152, 2002.
- Kawaike, K., Inoue, K., Toda, K. and Sagara, R.: Inundation Analysis by Heavy Rainfall in Low-lying River Basin, Hydraulic Information Management, WIT Press, pp.223-232, 2002.
- Toda, K. and Inoue, K.: Characteristics of Recent Urban Floods in Japan and Countermeasures against Them, Flood Defense 2002, Vol.2, Science Press, pp.1365-1371, 2002.
- (A3) Abstract refreed papers (30 papers)**  
(papers in Japanese, 4)
- Roshan SHRESTHA, Yasuto TACHIKAWA, Kaoru TAKARA: Selection of scale for distributed hydrological modeling in ungauged basin, Proc. Kick-off Workshop of the IAHS decade on prediction in ungauged basins, Nov. 2002, Brasilia.
- Kojima, T., K. Takara and Y. Tachikawa: A distributed runoff model for flood prediction in ungauged basin, Proc. Kick-off Workshop of the IAHS decade on prediction in ungauged basins, Nov. 2002, Brasilia.
- Yasuto TACHIKAWA, Roshan K. Shrestha and Kaoru TAKARA, Flood prediction for large scale catchment with atmospheric model output, Proc. of International Symp. on Urban Hydrology for the 21th century, Kuala Lumpur, Oct. 2002, pp. 368--380, CDROM.
- Toshiharu KOJIMA, Kaoru TAKARA and Yasuto TACHIKAWA, Comparison of three flood runoff models in the Shonai River basin, Japan, Proc. of International Symp. on Comparative Regional Hydrology and Mission for IHP Phase VI of UNESCO, Kuala Lumpur, Oct. 2002, pp. 10—24, 2002.
- Kimaro, T. A., Yasuto Tachikawa and Kaoru TAKARA, Development of a hydrological model for predicting the effects of land use changes at Yasu River basin, Proc. of International Symp. on Comparative Regional Hydrology and Mission for IHP Phase VI of UNESCO, Kuala Lumpur, Oct. 2002, pp. 35—44, 2002.
- Roshan K. Shrestha, Yasuto TACHIKAWA and Kaoru TAKARA, IC ratio concept in distributed hydrological modeling for optimal performance, Proc. of International Conference on Urban Hydrology for the 21st Century, 14-16 October 2002, Kuala Lumpur, pp. 790-800, 2002.
- M.A. Hamzah, Mase, H. and Takayama, T.: Bore runup and pressure on coastal structure, Proc. 4th Int. Conf. Hydrodynamics, Yokohama/Japan, pp.683-686, 2000.
- Hamzah, M.A., Mase, H. and Takayama, T.: Solitary wave pressure on a barrier, Proc. 10th Int. Offshore and Polar Eng. Conf., pp.519-523, 2000.
- Yuhi, M., Ishida, H. and Mase, H.: Numerical study of solitary wave propagation in curved channels, Proc. 27th Int. Conf. Coastal Eng., ASCE, pp.519-532, 2000.
- Hamzah, M.A., Mase, H. and Takayama, T.: Simulation and experiment of hydrodynamic pressure on a tsunami barrier, Proc. 27th Int. Conf. Coastal Eng., ASCE, pp.1501-1507, 2000.
- Yasuda, T., Mase, H. and Takayama, T.: Statistical characteristics of sea walls damaged by storm waves, Proc. 27th Int. Conf. Coastal Eng., ASCE, pp.2229-2239, 2000.
- Mase, H., Yuhi, M. and Kitano, T.: Mach reflection of random waves, Proc. 27th Int. Conf. Coastal Eng., ASCE, pp.2306-2317, 2000.
- Takayama, T., Ikesue S. and Shimosako, K.: Effect of directional occurrence distribution of extreme wave on composite breakwater reliability in sliding failure, Proc. 27th Int. Conf. Coastal Eng., ASCE, pp.1738-1750, 2000.
- Yoshioka, H., Takayama, T., Tanabe Y. and Shiraiishi, N.: ADCP application for long term monitoring of coastal waters, Proc. 27th Int. Conf. Coastal Eng., ASCE, pp.3884-3891, 2000.
- Mase, H., Takayama, T. and Kitano, T.: Application of neural network method to breakwater problems, Proc. Inaugural Int. Conf. on Port and Marine R&D and Technology, Singapore, pp.393-398, 2001.
- Mase, H., Takayama, T. and Kitano, T.: Spectral wave transformation model with wave diffraction effect, Proc. 4th Int. Symp. Ocean Wave measurement and analysis, ASCE, pp.814-823, 2001.
- Kitano, T. and Mase, H.: Theory of significant wave period based on spectral integrals, Proc. 4th Int. Symp. Ocean Wave measurement and analysis, ASCE, pp.414-423, 2001.
- Yuhi, M., Ishida, H. and Mase, H.: Collision of solitary waves in branching channels, Proc. 4th Int. Symp. Ocean Wave measurement and analysis, ASCE, pp.824-833, 2001.
- Sheng Dong, Hua-Jun Li and Takayama T.: Characteristics of turned liquid damper for suppressing wave-induced vibration, Proc. 11th Int. Offshore and Polar Eng. Conf., Norway, pp.79-83, 2001.
- Hua-Jun Li, Sheng Dong and Takayama T.: Experimental investigation of TLD for mitigating wave-induced structural vibration, Proc. 11th Int. Offshore and Polar Eng. Conf., Norway, pp.84-89, 2001.

- Yoshioka, H., Takayama, T. and Oguri, T.: Characteristics of sea water exchange in a harbor with water-exchangeable breakwater, Proc. Asian and Pacific Coastal Eng., Dailian, China, pp.731-740, 2001.
- Yoshioka, H and observation group: Red tide prediction in Tanabe Bay: observation, Proc. 11th PAMS/JECSS, Cheju, Korean, pp.337-340, 2001.
- Mase, H.: Hindcasting of waves due to typhoon in nearly closed bay, Proc. Solutions to Coastal Disasters, Sandiego, California, ASCE, pp.88-99, 2002.
- Oki, K., Mase, H. and Sakai, T.: Application of Boussinesq wave model to random wave transformation over non-uniform beach, Proc. 13th IAHR-APD Congress, Vol.1, pp.739-744, 2002.
- Mase, H. and Kitano, T.: Effect of missing large wave data on estimation accuracy of return wave heights, Proc. 28th Int. Conf. Coastal Eng., ASCE, pp.97-108, 2002.
- Kitano, T., Mase, H. and Kioka, W.: Time domain decomposition of incident and reflected waves, Proc. 28th Int. Conf. Coastal Eng., ASCE, pp.1697-1708, 2002.
- Kitano, T., Mase, H. and Kioka, W.: Time domain decomposition of incident and reflected waves, Proc. 28th Int. Conf. Coastal Eng., ASCE, pp.1697-1708, 2002.
- Takayama, T. and Tokubuchi, K.: Economical design of elastic chain for mooring through the numerical simulation, Proc. 12th Int. Offshore and Polar Eng. Conf., pp.235-242, 2002.
- Dong, S. and Takayama, T.: Improved least square method for selecting design wave height, Proc. 12th Int. Offshore and Polar Eng. Conf., pp.60-65, 2002.
- Ozbahceci, B.O., Takayama, T. and Mase, H.: Occurrence probability of wave grouping for different shapes of wave energy spectra, Proc. 12th Int. Offshore and Polar Eng. Conf., pp.37-42, 2002.

**(B) Research reviews (2 reviews)**  
(reviews in Japanese, 9)

- Takahashi, T.: Types and Mechanics of Debris Flow, Proc. International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage, Kyoto, pp.605-624, 2002.
- Takahashi, T.: Meteorological Conditions as Shallow Landslide Threshold, Proc. International Symposium on Landslide Risk Mitigation and Protection of Cultural and Natural Heritage, Kyoto, pp.625-634, 2002.

**(C) Books (3 books)**  
(books in Japanese, 18)

- Ibbitt, R., Takara, K., Desa, M.N.M. and Pawitan, H. (Eds.): Catalogue of Rivers for Southeast Asia and the Pacific, Vol. 4, The UNESCO-IHP Regional Steering Committee for Southeast Asia and the Pacific, 2002, 338 pp. and CD-ROM.
- Takara, K. and T. Kojima (Eds.): Hydrology and Water Resources in Asia Pacific Region, Asia Pacific Association of

Hydrology and Water Resources, 1139pp. and CD-ROM, 2003.

- Yasuto TACHIKAWA, Michiharu SHIIBA and Takuma TAKASAO: Development of a basin geomorphic information system using a TIN-DEM data structure, in chapter 3, GIS for water resources and watershed management (ed. John G. Lyon), pp. 25-37, Taylor and Francis, London, 2003

**(D) Research papers in bulletins and reports (6 papers)**  
(papers in Japanese, 37)

- Takahashi, T., Nakagawa, H. and Satofuka, Y.: Estimation of debris-flow hydrographs in the Camuri Grande river basin, Research report on "Flood and Sediment Disasters Caused by the 1999 Heavy Rainfall in Venezuela", pp.41-50, 2000.
- Takahashi, T., Nakagawa, H., Satofuka, Y. and Kawaike, K.: Reproduction of the flooding and deposition of debris flow on the fan of Camuri Grande, Research report on "Flood and Sediment Disasters Caused by the 1999 Heavy Rainfall in Venezuela", pp.51-61, 2000.
- Takahashi, T., Nakagawa, H., Satofuka, Y. and Kawaike, K.: Countermeasures by Sabo dams and river improvement for debris flow disasters, Research report on "Flood and Sediment Disasters Caused by the 1999 Heavy Rainfall in Venezuela", pp.63-75, 2000.
- Kimaro, T. A., Tachikawa, Y., and Takara, K.: Hydrological Effects of land use change in the Yasu River basin, Annuals of Disas. Prev. Res. Inst., Kyoto Univ., 46B, pp. 193-201.
- Tumaini KIMARO, Yasuto TACHIKAWA and Kaoru TAKARA: Groundwater Modelling Coupled with SVAT Model and its Application to the Yasu River Basin, Annuals of Disas. Prev. Res. Inst., Kyoto Univ., 45(B2), pp. 163-172, 2002.
- Dong Sheng, LI Huajun, LU Ming and Tomotsuka Takayama: Experimental study on the effectiveness of LTDs under wave loading, Journal of Ocean University of Qingdao, Vol.1, No.1, pp.80-86, 2002.

**(E) Textbooks for lectures (4 textbooks)**  
(textbooks in Japanese, 10)

- TAKARA, Kaoru: Lessons from disasters brought by typhoon RUSA, Proc. of Korea-Japan Joint Seminar on 2002 Flood Disaster by RUSA, pp.3-5, 2003.
- Toshiharu KOJIMA, Identification of flood disaster area using satellite images on the South Korean Flood Disaster 2002, Proc. of Korea-Japan Joint Seminar on 2002 Flood Disaster by RUSA, pp.23-28.
- Yasuto Tachikawa, NMNS Bandara Nawarathna, Baxter E. Vieux and Kaoru Takara, Proc. of Korea-Japan Joint Seminar on 2002 Flood Disaster by RUSA, Hydrologic prediction using weather radar information and distributed hydrological modeling, pp.171-182.
- Kaoru TAKARA, Takahiro SAYAMA, Diachi NAKAYAMA, and Yasuto TACHIKAWA: Development of rainfall-

sediment-runoff model in the upper Brantas River, Indonesia,  
Proc. of Third Workshop on Remote Sensing of Hydrological  
Processes and Applications, pp. 121-130, 2002.

**(G1) Papers presented at research meetings**  
(8 papers)

(papers in Japanese, 63)

Yasuto TACHIKAWA and Roshan, SHRESTA, Effects of  
Forcing Data Resolution in Macro Scale River Discharge  
Simulation, Proc. of Annual Journal of Korea Water Resources  
Association, Incheon, Korea, pp. 1179-1186, 2002, May.

Shrestha, Roshan K., Tachikawa, Yasuto and Takara, Kaoru:  
Embedding spatial correlation to downscale rainfall field from  
GCM data, Proc. of the 50<sup>th</sup> Annual Conf. of Japan Society of  
Civil Engineers, Disk 1, pp. II-9-II-10, 2003.

Kimaro, Tumaini A., Tachikawa, Yasuto and Takara, Kaoru:  
Combining the ISBA land surface scheme with a Distributed  
Hydrological model, Proc. of the 50<sup>th</sup> Annual Conf. of Japan  
Society of Civil Engineers, Disk 1, pp. II-89-II-90, 2003.

CHIANG, Shen and TAKARA, Kaoru: A Flood Simulation by  
Using Distributed Instantaneous Unit Hydrograph, Proc. of the  
22<sup>nd</sup> Annual Conference of Japan Society for Natural Disaster  
Science, pp. 143-144, 2003.

Kimaro, Tumaini A., Tachikawa Yasuto and Takara Kaoru: The  
Impact of land use changes on flood peaks in the Yasu River  
basin, Proc. of Annual Conference of Civil Engineers 2003,  
JSCE Kansai Chapter, pp. II-14-1 – II-14-2, 2003.

Takahiro Sayama, Kaoru Takara and Yasuto Tachikawa: On  
reliability of a rainfall-sediment-runoff model, Proc. of Annual  
Conference of Civil Engineers 2003, JSCE Kansai Chapter, pp.  
II-15-1 – II-15-2, 2003.

Shrestha, Roshan K., Tachikawa, Yasuto and Takara, Kaoru: A  
new method to improve the downscaling of rainfall field from  
GCM data, Proc. of Annual Conference of Civil Engineers  
2003, JSCE Kansai Chapter, pp. II-89-1 – II-89-2, 2003.

Toda, K., Inoue, K., Kawaike, K. and Tokunaga, T.: Flood  
Hazard Analysis by the Integrated River Basin Model, Proc.  
5th Taiwan-Japan Joint Seminar on Natural Hazards  
Mitigation, Tainan, Taiwan R.O.C., pp.109-117, 2002.

**(G2) Non-refreed papers**

(papers in Japanese, 4)

## 6.2.5 Division of Atmospheric Disaster

### (A1) Complete refereed papers (38 papers) (papers in Japanese, 4)

- Ueda, H., T.Takemoto, Y.P.Kim and W.Sha: Behavior of volatile inorganic components in urban aerosols, *Atmos. Environment*, Vol.34, pp.353-361, 2000.
- Ueda, H. and K.Andoh: Kelvin-Helmholtz billows associated with double diffusion effects, *Turbulence, Heat and Mass Transfer 3*, Edt. by Nagano, Y., K.Hanjalic and T.Tsuji, Aichi Shuppan, Nagoya, pp.291-295, 2000.
- Qian, S., K.Okada, Y.Nagase and H.Ueda: Direct numerical simulation of bluff body flows using non-staggered grids, *Chem. Eng. Comm.*, Vol.178, pp.157-183, 2000.
- Ueda, H., Z.Wang and H.Terada: A numerical study on acid rain and neutralization by yellow-sand in East Asia, *Air Pollution*, Vol.8, pp.119-128, 2000.
- Wang, Z., W.Sha and H.Ueda: Numerical modeling of pollutant transport and chemistry during a high-ozone event in Northern Taiwan, *Tellus*, Vol.25B, pp.1189-1205, 2000.
- Wang, Z., H.Ueda and M.Huang: A deflation module for use in modeling long-range transport of yellow-sand over East Asia, *J. Geophys. Research*, Vol.105, No.D22, pp.26947-26959, 2000.
- Ma, Y., O.Tsukamoto, X.Wu, I.Tamagawa, J.Wang, H.Ishikawa, Z.Hu and H.Gao: Characteristics of energy transfer and micrometeorology in the surface layer of the atmosphere above grassy marshland of the Tibetan Plateau, *Chinese J. Atmos. Sci.*, Vol.14(5), pp.715-722, 2000.
- Ohsawa, T., H.Ueda, T.Hayashi, A.Watanabe and J.Matsumoto: Diurnal variations of convective activity and rainfall in tropical Asia, *J. Meteor. Soc. Japan.*, Vol.79, No.1B, pp.333-352, 2001.
- Tanaka, K., H.Ishikawa, T.Hayashi, I.Tamagawa and Y.-M.Ma: Surface energy budget at Amdo on the Tibetan Plateau using GAME/Tibet IOP98 data, *J. Meteor. Soc. Japan*, Vol.79, No.1B, pp.505-517, 2001.
- Satsumabayashi, H., H.Nishizawa, Y.Yokouchi and H.Ueda: Pinonaldehyde and some other organics in rain and snow in central Japan, *Chemosphere*, Vol.20, pp.611-616, 2001.
- Ueda, H.: Trend of acid rain and neutralization by yellow-sand in East Asia-a numerical study -, Proc. of the 1st Joint Workshop on the Long-range Transboundary Air Pollution in Northeast Asia, 24 Aug, Seoul, pp.73-82, 2001.
- Carmichael, G.R., H.Hayami, G.Calori, I.Uno, S.Y.Cho, M.Engrdt, S.-B.Kim, Y.Ichikawa, Y.Ikeda, H.Ueda and M.Amann: Model intercomparison study of long range transport and sulfur deposition in East Asia (MICS-ASIA), *Water, Air, and Soil Pollution*, Vol.130, pp.51-62, 2001.
- An, J., M.Huang, Z.Wang, X.Zhang, H.Ueda and X.Cheng: Numerical regional air quality forecast tests over the mainland of China, *Water, Air, and Soil Pollution*, Vol.130, pp.1781-1786, 2001.
- Terada, H., H.Ueda, Z.Wang: Neutralization of acid rain by yellow-sand in East Asia -a numerical study-, Proc. 7th Int. Joint Seminar on the Regional Deposition Processes in the Atmosphere, pp.115-122, 2001.
- Kannari, A., T.Baba, H.Ueda, Y.Tonooka, K.Matsuda: Development of multipollutant emissions inventory in Japan, Proc. 7th Int. Joint Seminar on the Regional Deposition Processes in the Atmosphere, pp.136-141, 2001.
- Ueda, H., H.Terada and Z.Wang: Numerical study on transboundary transport of acid rain and yellow sand and interaction between them, Proc. of 12th World Clean Air and Environment Congress, Seoul, Aug. 26-31, pp.201-206, 2001.
- Ma, Y., O.Tsukamoto, J.Wang, H.Ishikawa and I. Tamagawa: Analysis of aerodynamic and thermodynamic parameters on the grassy marshland surface of Tibetan Plateau, *Progress in Natural Science*, Vol.12, No.1, pp.36-40, 2002.
- Nagai, H., T.Kobayashi, H.Ishikawa and J.Teshima: An analysis of soil moisture and evaporation at a grassland section of GAME/Tibet, Amdo using the BBH model, *J. Japan Soc. Hydrol. and Water Resources*, Vol.15, No.1, pp.3-12, 2002.
- Y. Okuda, J. Katsura and H. Kawai: Characteristics of Static Pressure on the Ground, *Journal of Wind Engineering & Industrial Aerodynamics*, Vol.89, 1525-1537, 2001.
- H. Kawai: Local peak pressure and conical vortex on building, *Journal of Wind Engineering & Industrial Aerodynamics*, Vol.92, 251-263, 2002.
- Y.Tamura, K.Suda, A.Sasaki, K.Miyashita, Y. Iwatani, T.Maruyama, K.Hibi and R.Ishibashi: Simultaneous wind measurements over two sites using Doppler sodars, *Journal of Wind Engineering and Industrial Aerodynamics*, No.89, pp.1647-1656, 2001.
- Inatsu, M., H. Mukougawa, and S.-P. Xie: Formation of subtropical westerly jet core in an idealized GCM without mountains. *Geophys. Res. Lett.*, 27, 529-533, 2000.
- Y. Okuda, J. Katsura and H. Kawai: Characteristics of Static Pressure on the Ground, *Journal of Wind Engineering & Industrial Aerodynamics*, Vol.89, pp.1525-1537, 2001.
- Y.Tamura, K.Suda, A.Sasaki, K.Miyashita, Y.Iwatani, T.Maruyama, K.Hibi and R.Ishibashi: Simultaneous wind measurements over two sites using Doppler sodars, *Journal of Wind Engineering and Industrial Aerodynamics*, No.89, pp.1647-1656, 2001.
- H. Kawai: Local peak pressure and conical vortex on building, *Journal of Wind Engineering & Industrial Aerodynamics*, Vol.92, pp.251-263, 2002.
- Inatsu, M., H. Mukougawa, and S.-P. Xie: Stationary eddy response to surface boundary forcing: Idealized GCM experiments. *J. Atmos. Sci.*, 59(11), 1898-1915, 2002.
- Arai, M., and H. Mukougawa: On the effectiveness of the eddy straining mechanism for the maintenance of blocking flows. *J. Meteor. Soc. Japan*, 80(4B), 1089-1102, 2002.
- Inatsu, M., H. Mukougawa, and S.-P. Xie: Tropical and extratropical SST effects on the midlatitude storm track. *J.*

- Meteor. Soc. Japan, 80(4B), 1069--1076, 2002.
- Inatsu, M., H. Mukougawa, and S.-P. Xie: Atmospheric response to zonal variations in mid-latitude SST: Transient and stationary eddies and their feedback. *J. Climate*, 16, 3314-3329, 2003.
- Itano, T. and H. Ishikawa: Effect of negative vorticity on the formation of multiple structure of natural vortices, *J. Atmos. Sci.*, Vol. 59, 3254-3262(2002).
- Ma, Y., O. Tsukamoto, H. Ishikawa, Z. Su, M. Menenti, J. Wang and W. Jun: Determination of Regional Land Surface Heat Flux Densities over Heterogeneous Landscape of HEIFE Integrating Satellite Remote Sensing with Field Observations, *J. Meteor. Soc. of Japan*, Vol. 80, No.3, 485-591, (2002).
- Ma, Y., H. Ishikawa, O. Tsukamoto, M. Menenti, Zh. Su, J. Wang, T. Yao, T. Koike and T. Yasunari: Regionalization of surface fluxes over heterogeneous landscape of Tibetan Plateau by using satellite remote sensing data, *J. Meteor. Soc. of Japan*, Vol. 81, No. 2, 277-293(2003).
- Ma, Yaoming, W. Na, M. Li, O. Tsukamoto, H. Ishikawa, J. Wang Z. Hu and F. Gao: The Comparative Analysis of Characteristics of Energy Transfer in Near Surface Layer over the Area of GAME/Tibet, HEIFE and AECMP'95, *CHINESE J. of Atmos. Sci.*, Vol.27, No.1, 1-14(2003).
- Ma, Yaoming, Z. Su, T. Koike, T. Yao, H. Ishikawa, K. Ueno and M. Menenti: On measuring and remote sensing surface energy partitioning over the Tibetan Plateau from GAME/Tibet to CAMP/Tibet, *Physics and Chemistry of the Earth*, 28, 63-74(2003).
- Tanaka, K., I. Tamagawa, H. Ishikawa, Y. Ma and Z. Hu: Surface energy budget and closure of the eastern Tibetan Plateau during the GAME-Tibet IOP 1998, *J. Hydrology*, vol./issue 283/1-4, pp. 169-183(2003).
- An J., Ueda, H., Wang, Z. and Matsuda, K. and Kajino, M.: Simulations of monthly mean nitrate concentrations in precipitation. *Atmospheric Environment*, Vol.36, pp.1100-1116, 2002.
- Terada, H., Ueda, H. and Wang, Z.: Trend of acid rain and neutralization by yellow-sand in East Asia -- A numerical study --, *Atmos. Environment*, Vol.36, pp.503-509 (2002)
- Carmichael, G.R., Calori, G., Hayami, H., Uno, I., Cho, S.Y., Engrdt, M., Kim, S.-B., Ichikawa, Y., Ikeda, Y., Woo, J.-H., Ueda, H. and Amann, M.: The MICS-Asia study: model intercomparison of long-range transport and sulfur deposition in East Asia. *Atmospheric Environment*, Vol.36, pp.175-199, 2002.

**(A2) Refreed papers (8 papers)**  
(papers in Japanese, 6)

- H. Kawai: Response of Structure during a Typhoon Wind, Proceedings of 8th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability, PMC2000-336, 1-6, 2000.
- H. Kawai: Local Peak Pressure on a Flat Roof - Mechanism and

Reduction-, Proceedings of International Symposium on Wind and Structures for the 21st Century, pp.91-98, 2000.

- H. Kawai: Aeroelastic Instability of a Rectangular Cylinder with Side Ratio of 1/2 in Smooth Flow, Proceedings of the Fourth International Colloquium on Bluff Body Aerodynamics and Applications, pp.255-258, 2000.
- H. Kawai, K. Fujinami: Wind Force on a Two-Dimensional Square Cylinder with Corner Recession and Corner Roundness in Smooth Flow, Proceedings of the Fifth Asia-Pacific Conference on Wind Engineering, pp.489-492, 2001.
- H. Kawai and H. Nishimura: Wind Pressure on a Roof Tile, Proceedings of the Second International Symposium on Advances in Wind and Structures, pp.97-104, 2002
- H. Kawai and H. Nishimura: Field Measurement on Wind Force on a Roof Tile, Proceedings of the 3<sup>rd</sup> US-Japan Workshop on Wind Engineering, pp.106-115, 2002
- H. Kawai and H. Nishimura: Field Measurement on Wind Force on Roof Tiles, Proceedings of the 11<sup>th</sup> International Conference on Wind Engineering, Vol.1, pp.203-210, 2003

**(A3) Abstract refereed papers (3 papers)**  
(papers in Japanese, 2)

- T. Maruyama and Y. Maruyama: Large eddy simulations around a rectangular prism using artificially generated turbulent flows, Abstracts of papers at the 3rd international symposium on computational wind engineering, pp.11-14, 2000
- T. Maruyama and Y. Maruyama: Large eddy simulations around a rectangular prism using artificially generated turbulent flows, 3rd International Symposium on Computational Wind Engineering CWE2000 Abstracts of papers, pp.11-14, 2000.
- T. Maruyama and T. Tanaka: Experimental study on the high temperature field behind a flame in a turbulent boundary layer, Conference Programme Book ;Poster session, Euromech 9th European Turbulence Conference, 2002

**(B) Research reviews**  
(reviewss in Japanese, 8)

**(C) Books**  
(books in Japanese, 8)

**(D) Research papers in bulletins and reports (2 papers)**  
(papers in Japanese, 35)

- Mukougawa, H., and M. Abe: Multiple zonal flow regimes in a two-layer model. *Tohoku Geophysical Journal*, The Graduate School of Science, Tohoku University, 36, 200--206, 2001.
- Inatsu, M., H. Mukougawa, and S.-P. Xie: On the localization of strong wind shear and storm tracks in an idealized AGCM. *Bulletin of the Research Center for North Eurasia and North Pacific Regions*, Hokkaido University, 2001.

**(G1) Papers presented at research meetings**  
(7 papers)

(papers in Japanese, 39)

Iguchi, T. and H.Kida: A POSSIBLE SINK OF CO<sub>2</sub> DUE TO VEGETATION IN MID-LATITUDE CONTINENTS INFERRED FROM A GLOBAL CO<sub>2</sub> TRANSPORT MODEL, 6th International Carbon Dioxide Conference Extended Abstracts, Vol.2, pp.931-934, 2001.

Inatsu, M., H. Mukougawa, and S.-P. Xie: Zonally localized storm tracks in an idealized AGCM. American Meteorological Society, Proc. 13th Conference on Atmospheric and Oceanic Fluid Dynamics, pp.275--278, 2001.

Mukougawa, H., and T. Hirooka: Predictability on stratospheric sudden warming: A case study for 1998/99 winter. Abstracts for International Symposium on Stratospheric Variations and Climate, 62--65, 2002.

Inatsu, M., and H. Mukougawa, and S-P. Xie: Atmospheric response to zonal variations in mid-latitude SST: Transient and stationary eddies and their feedback. Abstracts for International Symposium on Stratospheric Variations and Climate, pp.77--78, 2002.

Yoshino, J., H.Ishikawa and H.Ueda: Characteristic parameters and formative mechanism of the 24 September 1999 tornadic outbreaks in the outer rain

band associated with Typhoon Bart(1999), Proc. Intl. Conf. on mesoscale convective systems and heavy rainfall/snowfall in east Asia, 29-31 Oct. 2002, Tokyo, Japan, pp. 228-233.

Yoshino, J., H.Ishikawa and H.Ueda: Numerical study on the rapid decaying and re-intensification of the extratropical transition of Typhoon Bart(1999) over the western Pacific ocean, Proc. Intl. Conf. on mesoscale convective systems and heavy rainfall/snowfall in east Asia, 29-31 Oct. 2002, Tokyo, Japan, pp. 234-244.

Oku, Y., H.Ishikawa and H.Ueda: Estimation of land surface temperature on the Tibetan Plateau using GMS data, Preprints of 83rd American Meteorological Society Annual Meeting, Feb. , 2003, Long Beach, USA, in CD-ROM.

**(G2) Non-refreed papers (1 paper)**

(papers in Japanese, 5)

Iwashima, T., R.Yamamoto and Y.Sakurai: Long-term trend of extremely heavy precipitation intensity in Japan in recent 100 years, Recent Res. Devel. Meteorology, Vol.1, pp.1-9, 2002.

## 6. 2. 6 Research Center for Disaster Environment

### (A1) Complete refreed papers (13 papers) (papers in Japanese, 5)

- Sassa, S. and Sekiguchi, H.: Analysis of wave-induced liquefaction of sand beds, *Geotechnique*, pp.115-126, 2001.
- Sassa, S., Sekiguchi, H. and Miyamoto, J.: Analysis of progressive liquefaction as a moving-boundary problem, *Geotechnique*, pp.847-857, 2001.
- Ishigaki, T., Shiono, K., Feng, T. and Siqueira, R.N.: Effect of Stable Density Stratification on Secondary Flow in Compound Channel, *Society of Hydrology and Water Resources Engineering*, pp.535-540, 2001.
- Fujinawa, Y., K. Takahashi, T. Matsumoto, T. Nakayama, T. Sawada and H.Sakai: Electromagnetic field anomaly associated with the 1998 seismic swarms in central Japan, *Phys. Chem. Earth(A)*, Vol.25, pp.247-253, 2000.
- Nining Sari Ningsih, Takao Yamashita, Lotfi Aou: Three-Dimensional Simulation of Water Circulation in the Java Sea: Influence of Wind Waves on Surface and Bottom Stresses, *Natural Hazards*, Issue 2/3, Vol. 21, pp.145-171, 2000.
- Ohsawa, T., T. Hayashi and Y. Mitsuta: Intraseasonal Variation of Monsoon Activities Associated with the Rainfall over Bangladesh during the 1995 Summer monsoon Season, *J. Geophys. Res.*, Vol.105, No.D24, pp.445-459, 2000.
- Okuda, M., T. Gokan, Y. Mitsuta, T. Fujii and T. Hayashi: Estimation of Wind Disasters Caused by Typhoons Striking the Main islands of Japan, *J. Natural Disas. Science*, Vol. 22, No.2, pp.53-65, 2000.
- Ohsawa, T, H. Ueda, T. Hayashi, A. Watanabe and J. Matsumoto: Diurnal Variations of Convective Activity and Rainfall in Tropical Asia, *J. Meteor. Soc. Japan*, Vol.79, No.1B, pp.333-352, 2001.
- Rahman, M.M., Haque, M.A., Nakagawa, H. and Muramoto, Y.: Local scour around spur-dikes in a braided river, *Proc. of the 30th IAHR Congress*, Aug. 2003, Thessaloniki, Greece, pp.777-784.
- Nakagawa, H., Takahashi, T., Satofuka, Y. and Kawaike, K.: Numerical simulation of sediment disasters caused by heavy rainfall in the Camuri Grande basin, Venezuela 1999, *Proc. of the 3rd International Conf. on Debris-flow Hazards Mitigation: Mechanics, Prediction, and Assessment*, Davos, Switzerland, Sep. 10-12, 2003, pp.671-682.
- Md. N. Islam, A.K.M.Saiful, T. HAYASHI, T.Terao and H. Uyeda: Application of a Method to Estimate rainfall in Bangladesh Using GMS-5 Data, *J. Natural Disas. Sci.*, Vol. 24, No.2, pp.83-89, 2002.
- Ishigaki, T., Shiono, K. and Rameshwaran, P.: PIV and LDA Measurements of Secondary Flow in a Meandering Channel for Overbank Flow, *Journal of Visualization*, Vol.5, No.2, pp.153-159, 2002.

Muto, Y., Baba, Y. and Fujita, I.: Velocity Measurements in Rectangular Embayments Attached to a Straight Open Channel, *Proc. Int'l Conf. on Fluvial Hydraulics (River Flow 2002)*, Louvain-la-Neuve, Belgium, pp.1213-1219, 2002.9.

### (A2) Refreed papers (24 papers) (papers in Japanese, 17)

- Ishigaki, T., Baba, Y. and Muto, Y.: Vortex Motion around a Plate with Footing in Open Channel Flow and its Effect on Local Scouring, *Proc. of 4th Int. Conf. on Hydro-Science and -Engineering*, Korea, Vol. IV, p.169, 2000.
- Ishigaki, T. and Muto, Y.: Flow Structure and Bed Form in Compound Sinuous Channel, *Proc. of 12th Congress of APD-IAHR*, Thailand, Vol.I, pp.211-217, 2000.
- Ishigaki, T. and Muto, Y.: Secondary Flow and Bed Form in Compound Sinuous Channel for Steady and Unsteady Flows, *Proc. of 29th Congress of IAHR*, Beijing, Theme D, Vol.I, pp.143-149, . 2001.
- Yasumasa Itakura, Toshiaki Kitajima, Kyouhei Endo and Toyoaki Sawada: A new double dual-axes acelerometer debris-flow detection system, *Debris - flow Hazards Mitigation: Mechanics, Prediction and Assessment*, pp.319-324, 2000.
- Yasumasa Itakura, Norikatsu Fujii and Toyoaki Sawada: Basic characteristics of ground vibration sensors for the detection of debris flow, *Phys. Chem. Earth(B)*, Vol.25, pp.717-720, 2000.
- Eiichi Shimojima and Toyoaki Sawada: Rainfall-Runoff Processes in a Small Mountainous Watershed, *Proc. of 3rd Int'l Hydrology and Water Resources Symposium*, pp.1090-1095, 2000.
- Yamashita, T. and K. Fukujin: THE RED-TIDE PRE-DICTION MODEL WITH CONSIDERATION OF INTER - SPECIFIC COMPETITION BETWEEN PHYTOPLANKTONS, *Recent Advances in Marine Science and Technology 2000*, PACON International, pp.99-110, 2001.
- Shigeru Kato and Takao Yamashita: THREE-DIMENSIONAL SIMULATION AND ITS VERIFICATION BY ADCP OBSERVATIONS FOR COASTAL CURRENTS, *Recent Advances in Marine Science and Technology 2000*, PACON International, pp.89-98, 2001.
- Fujii, T., J. Maeda, N. Nobuyuki and T. Hayashi: An Analysis of a Pressure a Pattern in Severe Typhoon Bart Hitting the Japanese Islands in 1999 and a Comparison of the Gradient Wind with the Observed Surface Wind, *Proc. 5th Asia-Pacific Conf. on Wind Engineering*, Kyoto (APCWE V), pp.53-356, 2001.
- Ito, Y., T. Hayashi, F. Kobayashi, G. Naito and H. Hashiguchi: Wind Characteristics and Resources Evaluation over a Complex Terrain Using a Doppler Sodar, *5th Asia-Pacific Conf. on Wind Engineering*, Kyoto (APCWE V), pp.661-665, 2001.
- Fujii, T., J. Maeda, N. Ishida and T. Hayashi: An Analysis of a



- Pressure Pattern in Severe Typhoon Bart Hitting the Japanese Islands in 1999 and a Comparison of the Gradient Wind with the Observed Surface Wind, *J. Wind Eng., Proc. Fifth Asia-Pacific Conf. on Wind Eng.*, Kyoto, pp.353-356, 2001.
- Ito, Y., T. Hayashi, F. Kobayashi, G. Naito and H. Hashiguchi: Wind Characteristics and Resources Evaluation over a Complex Terrain Using a Doppler Sodar, *J. Wind Eng., Proc. Fifth Asia-Pacific Conf. on Wind Eng.*, Kyoto, pp.661-664, 2001.
- Fudeyasu H. and T. Hayashi: Statistical Study of Pressure Dips Environment, *Proc. International Conf. on Mesoscale Meteorol. and Typhoon in East Asia*, pp.322-326, 2001.
- Ishigaki, T., Baba, Y. and Muto, Y.: Vortex Motion around a Plate with Footing in Open Channel Flow and its Effect on Local Scouring, *Advances in Hydro-Science and -Engineering, Volume IV*, Seoul, Korea, p.169, 2000.
- Muto, Y., Imamoto, H. and Ishigaki, T.: Turbulence Characteristics of a shear flow in an embayment attached to a straight open channel, *Advances in Hydro-Science and -Engineering, Volume IV*, Seoul, Korea, p.232, 2000.
- Muto, Y., Imamoto, H. and Ishigaki, T.: Velocity measurements in a straight open channel with a rectangular embayment, *Proc. 12th APD-IAHR*, Bangkok, Thailand, 2000.
- Kim, H. and Sekiguchi, H.: Plastic deformation behaviour of composite breakwaters under earthquake shaking, *Proc. Int. Conf. Physical Modelling in Geotechnics, St. John's*, pp.587-592, 2002.
- Miyamoto, J., Sassa, S. and Sekiguchi, H.: Wave-induced liquefaction and changes in void ratio profile with depth, *Proc. Int. Conf. Physical Modelling in Geotechnics, St. John's*, pp. 259-264, 2002.
- Atsuhiko Kinoshita, Takahisa Mizuyama, Masaharu Fujita and Toyoaki Sawada: The Impact on Fish of Sediment Flushing From a Sabo Dam, *International Congress INTERPRAEVENT 2002 in the Pacific Rim-MATSUMOTO/JAAN*, Congress publication, Vol. 2, pp.927-934, 2002.
- Masaharu Fujita, Toyoaki Sawada and Takahisa Mizuyama: Monitoring of Sediment Movement in a Small Mountain Watershed, *International Congress INTERPRAEVENT 2002 in the Pacific Rim-MATSUMOTO/JAAN*, Congress publication, Vol. 2, pp.33-40, 2002.
- Hayashi, T. and Y. Ito: Development of a Mobile Acoustic Sounder(SODAR) and Its Application to the Field Observation, *Proc. 11th International Symposium on Acoustic Remote Sensing and Associated Technique of the Atmosphere and Oceans*, pp.111-114, 2002.
- Ito, Y., T. Hayashi and H. Hashiguchi: Wind Resources Evaluation over a Complex Terrain Using a Doppler Radar, *Proc. 11th International Symposium on Acoustic Remote Sensing and Associated Technique of the Atmosphere and Oceans*, pp.291-294, 2002.
- Ishigaki, T. and Funahashi, R.: Complex Flow Through Constriction Scoured by Oscillatory Open Channel Flow, *Advances in Fluid Modeling and Turbulence Measurements, Proc. of 8th International Symposium on Flow Modeling and Turbulence Measurements*, Ed. Ninokata etc., pp.119-126, World Scientific Publishing, 2002.
- Ishigaki, T. and Baba, Y.: Local Scour by Secondary Flow around Constriction in Open Channel, *Advances in Hydraulics and Water Engineering, Proc. of 13th Congress of APD-IAHR*, Singapore, Vol. I, pp.261-265, World Scientific Publishing, 2002.
- (A3) Abstract refereed papers (26 papers)**  
(papers in Japanese, 2)
- Sekiguchi, H., Sassa, S., Sugioka, K. and Miyamoto, J.: Wave-induced liquefaction, flow deformation and particle transport in sand beds, *Proc. Int. Conf. GeoEng2000, Melbourne, Paper No. EG-0121 (CD-ROM)*, 2000.
- Ohta, H., Sekiguchi, H. and Mitachi, T.: An overview of geotechnical engineering education in Japan.: *Proc. 1st Int. Conf. Geotech. Eng. Education and Training, Sinaia*, pp.131-136, 2000.
- Sekiguchi, H. and Kim, H.: Seismic deformation behaviour of composite breakwaters resting on sand foundations, *Proc. Seminar on Integrated Engineering, Singapore*, pp.156-163, 2000.
- Sekiguchi, H., Kim, H. and Kita, K.: Shaking table tests on seismic deformation of composite breakwaters, *Proc. 4th Int. Conf. Recent Advances in Geotech. Earthq. Eng. & Soil Dynamics, San Diego, Paper No. 9.09 (CD-ROM)*, 2001.
- Miyamoto, J., Sassa, S. and Sekiguchi, H.: Wave-induced liquefaction and flow deformation in sand beds, *Proc. 15th Int. Conf. Soil Mech. Geotech. Eng., Istanbul*, pp.2239-2242, 2001.
- Miyamoto, J. and Sekiguchi, H.: Effect of wave loading history on the initiation and development of liquefaction in sand beds, *Proc. 4th Int. Conf. Micromechanics of Granular Media, Sendai*, pp.259-262, 2001.
- Ishigaki, T., Shiono, K. and Rameshwaran, P.: PIV and LDA Measurements of Secondary Flow in a Meandering Channel for Overbank Flow, *Proc. of the 6th Asian Symposium on Visualization*, pp.289-291, 2001.
- Noda, H., T. Yamashita, M. Kuroiwa and K. Kuroki: A beach profile and sea-bottom interface observation under stormy conditions, *Proc. 27th Int. Conf. on Coastal Eng., ASCE*, pp.2615-2623, 2000.
- Kato, S. and T. Yamashita: A three-dimensional model for wind and wave-induced coastal currents and its verification by ADCP observation in the near shore zone, *Proc. 27th Int. Conf. on Coastal Eng., ASCE*, pp.3777-3790, 2000.
- Shigeru Kato, Takao Yamashita and Jung Wook Park: Comparative observation of wind, wave and currents in the East(Japan) Sea, *Proc. the First Asian and Pacific Coastal Engineering Conf., ASPACE2001*, pp.400-410, 2001
- Terao, T., T. Hayashi, Md. N. Islam and J. Matsumoto: Diurnal

- Variation of the Atmospheric Vertical Structure over Bangladesh Region Observed by Rawin Sonde Intensive Observation, Proc. 3rd, International Symp. Asian Monsoon System(ISAM3), pp.174-179, 2001.
- Md. N. Islam, Terao, T., T. Hayashi, J. Matsumoto and T. Oka: Estimation of Monsoon Rain and the Use of BMD Radar Data, Proc. 3rd, International Symp. Asian Monsoon System (ISAM3), pp.298-303, 2001.
- Hayashi, T. and Y. Ito: Development of a Mobile Acoustic Sounder(SODAR) and Its Application to the Field Observation, Proc. 11th International Symposium on Acoustic Remote Sensing and Associated Technique of the Atmosphere and Oceans, pp.111-114, 2002.
- Y. Ito, T. Hayashi and H. Hashiguchi: Wind Resources Evaluation over a Complex Terrain Using a Doppler Radar, Proc. 11th International Symposium on Acoustic Remote Sensing and Associated Technique of the Atmosphere and Oceans, pp.291-114, 2002.
- Li, F., Sassa, S. and Sekiguchi, H.: Modelling of the elastoplastic behaviour of unsaturated soils under hydro-environmental loading, Proc. 4<sup>th</sup> Int. Summer Symp., JSCE, pp. 207-210, 2002.
- Sekiguchi, H., Sassa, S. and Li, F.: Instability of fluid-granular soil systems subjected to dynamic environmental loading, Proc. 5<sup>th</sup> Taiwan-Japan Joint Seminar on Natural Hazards Mitigation, Taiwan, pp. 345-354, 2002.
- H. Nakagawa: Analysys of driftwood behavior debouched into a bay by using Eulerian and Lagrangian coupling model, Proc. of 2nd International Symposium on Flood Defence, Sep., 2002, pp.1649-1657.
- T. Takahashi, H. Nakagawa, Y. Satofuka and H. M. Wang: Debris flow control by a grid-type Sabo dam, Proc. of 2nd International Symposium on Flood Defence, Sep., 2002, pp.1629-1636.
- Zhang, H, Nakagawa, H., Ishigaki, T. and Muto, Y.: Sediment transport and bed evolution modeling of the Yodo River system, Proc. of the 5th International Summer Symposium, JSCE, Tokyo, July26, 2003, pp.173-176.
- Rahman, M.M., Nakagawa, H., Khaleduzzaman, ATM and Ishigaki, T.: Flow and scour-deposition around bandals, Proc. of the 5th International Summer Symposium, JSCE, Tokyo, July26, 2003, pp.177-180.
- Khaleduzzaman ATM, Nakagawa, H., Rahman, M.M., Ishigaki, T. and Kitamura, K.: Flow and bed deformation around permeable groynes, Proc. of the 5th International Summer Symposium, JSCE, Tokyo, July26, 2003, pp.181-184.
- Shigeru Kato, Takao Yamashita and Naoto Kihara: CROSS-SHORE PROFILE OF WIND AND WAVE-INDUCED COASTAL CURRENT SYSTEM, 28th Int. Conf. on Coastal Eng., ASCE, pp.2824-2836, 2002.
- Yamashita, T. and Y. Nakagawa: Storm Surge Model in Wave-Shoaling Region, 28th Int. Conf. on Coastal Eng., ASCE, pp.201-208, 2002.
- Yasuyuki Baba, Takao Yamashita, Shigeru Kato: RELATION BETWEEN SEA SURFACE STRESS AND WHITECAP DISSIPATION IN THE SHOALING ZONE, 28th Int. Conf. on Coastal Eng., ASCE, pp.247-257, 2002.
- Kazama, S., Muto, Y., Nakatsuji, K. and Inoue, K.: Study on the 2000 Flood in the Lower Mekong by Field Survey and Numerical Simulation, Proc. 13th APD-IAHR, Singapore, pp., 2002.8.
- Yasuyuki Baba, Takao Yamashita, Shigeru Kato: RELATION BETWEEN SEA SURFACE STRESS AND WHITECAP DISSIPATION IN THE SHOALING ZONE, 28th Int. Conf. on Coastal Eng., ASCE, pp.247-257, 2002.
- (B) Research reviews (2 reviews)**  
(reviews in Japanese, 2)
- Sekiguchi, H., Kim, H. and Miyamoto, J.: Dynamic physical and numerical modelling in waterfront geotechnics, Proc. Kazakhtan-Japan Joint Geotechnical Seminar, Astana, pp.12-19, 2001.
- Sekiguchi, H.: Recent advances in modelling soil responses to wave loading, Proc. Int. Seminar on Practice and Advances in Geotechnical Engineering, Shanghai, pp. 103-116, 2002.
- (C) Books**  
(books in Japanese, 4)
- (D) Research papers in bulletins and reports (12 papers)**  
(papers in Japanese, 13)
- Inoue, K., Ushiyama M., Ishigaki T., Toda K. and Kuriyama K.: On Heavy Rainfall Disaster in Tokai District in September 2000., Annuals Disas. Prev. Res. Inst., Kyoto Univ., No..44, B-2, pp.277-287, 2001.
- Yamashita, T., A. Lotfi and Y. Nakagawa: A STORM SURGE SIMULATION MODEL IN EXTREMELY SHALLOW WATER, Proc. of Korea-China Conference on Port and Coastal Engineering, pp.1-2, 2000.
- Kato, S., J.W. Park, K.H. Kim, B.H. Choi, K. Kim and T. Yamashita: Coastal current and sediment circulation system in the East(Japan) Sea, The 11th PAMS/JECSS WORKSHOP, pp.149-150, 2001.
- Yamashita, T: Comparative Study of Beach Dynamics and Morphology in Japan and Korea, For Beach Management of Japan (East) Sea Coasts, The 11th PAMS/JECSS WORKSHOP, pp.151-154, 2001.
- Yoshioka, H. and observation group(including T. Yamashita): Red-Tide Prediction in Tanabe Bay, Observation, The 11th PAMS/JECSS WORKSHOP, pp.337-340, 2001.
- Fukujin, K., Y.W. Park and T. Yamashita: Red-Tide Prediction in Tanabe Bay, Modeling, The 11th PAMS/JECSS WORKSHOP, pp.341-344, 2001.
- Takao Yamashita, Shigeru Kato and Naoto Kihara: Cross-shore Profile of Wind and Wave-Induced Coastal Current System,

Proc. Int. Inaugural International Conf. on Port and maritime R&D and Technology, Singapore, Vol.1, pp.269-272, 2001.

Takao Yamashita, Masahiro Ito and Kentaro Hayashi: Sediment-Cell Based Coastal Zone Management, Proc. Int. Inaugural International Conf. on Port and maritime R&D and Technology, Singapore, Vol.2, pp.535-540, 2001.

Masahiro ITO, Takao YAMASITA, Hidetosi TATEMATSU and Mitsuhiro OOSHIMA: Beach topography and vegetation in the Fuji, Enshu and Hichirimihama Coasts, Proc. Int. Inaugural International Conf. on Port and maritime R&D and Technology, Singapore, Vol.2, pp.513-520, 2001.

Muto, Y., Imamoto, H. and Ishigaki, T.: Velocity Measurements in a Rectangular Embayment Attached to a Straight Open Channel, Annuals of Disas. Prev. Res. Inst., Kyoto Univ., No.43B-2, pp.425-432, 2000.

Md. Munzur RAHMAN, Nakagawa, H., Ishigaki, T. and Khaleduzzaman ATM: Channel Stabilization Using Bandalling, Annuals of DPRI, Kyoto Univ., No.46 B, 2003, pp.613-618.

Muto, Y., Baba, Y. and Aya, S.: Velocity Measurements in Open Channel Flow with Rectangular Embayments Formed by Spur Dykes, Annuals of Disas. Prev. Res. Inst., Kyoto Univ., No.45B, 2002.4, pp.449-457.

**(E) Textbooks for lectures (1 textbook)**

(textbooks in Japanese, 4)

Nakagawa, H.: Water Resource Engineering (Disaster Mitigation Management) Chapter 4, Lecture Text as JICA Project for Master of Science in Water Resources Engineering, Tribhuvan University, Institute of Engineering, Department of Civil Engineering, pp.4-1-4-95, 2001.

**(G1) Papers presented at research meetings**  
(papers in Japanese, 13)

**(G2) Non-refreed papers (2 papers)**  
(papers in Japanese, 7)

Nakagawa, H., T. Takahashi, Y. Satofuka and K. Kawaike: Estimation of Efficacy of Sabo Facilities by Means of Numerical Simulation Method, Proc. of 5th Taiwan-Japan Joint Seminar on Natural Hazards Mitigation, Oct., 2002, pp.43-63.

Ishigaki, T., Inoue, K., Toda, K. and Baba, Y.: Investigation of Inundation into Underground Space in Urban Area, The 2nd Workshop on The Development of Integrated Disaster Reduction Systems on Compound Urban Floodings, 3-19, 2002.

**(H) Data aquisition and collection reports**  
(papers in Japanese, 1)

## 6. 2. 7 Research Center for Earthquake Prediction

### (A1) Complete refereed papers (91 papers) (papers in Japanese, 40)

- Hashimoto, M., S. Miyazaki, and D.D. Jackson: A block-fault model for deformation of the Japanese islands derived from continuous GPS observation, *Earth Planets and Space*, Vol.52, pp.1095-1100, 2000.
- Hashimoto, M.: Complexity in the recurrence of large earthquakes in southwest Japan: A simulation with an interacting fault system model, *Earth Planets and Space*, Vol.52, pp.249-259, 2001.
- Yasuhiro UMEDA: The 2000 western Tottori earthquake, *Earth Planets Space*, Vol.54 No.8, pp.3-4, 2002.
- Oshiman, N., Y. Sasai, Y. Honkura, Y. Ishikawa and S. Koyama: Long-term Geomagnetic Changes Observed in Association with Earthquake Swarm Activities in the Izu Peninsula, Japan, *Annali di Geofisica*, 44, No.2, pp.261-272, 2001.
- Murakami, H., T. Hashimoto, N. Oshiman, S. Yamaguchi, Y. Honkura, and N. Sumitomo: Electrokinetic phenomena associated with the water injection experiment at the Nojima fault in Awaji Island, Japan, *Island Arc*, 10, pp.244-251, 2001.
- Ogawa, Y., M. Mishina, T. Goto, H. Satoh, N. Oshiman, T. Kasaya, Y. Takahashi, T. Nishitani, S. Sakanaka, M. Uyeshima, Y. Takahashi, Y. Honkura, and M. Matsushima: Magnetotelluric imaging of fluids in intraplate earthquake zones, NE Japan back arc, *Geophysical Research Letters*, Vol.28, No.19, pp.3741-3744, 2001.
- Honkura, Y., A. M. Isikara, N. Oshiman, A. Ito, B. Ucer, S. Baris, M. K. Tuncer, M. Matsushima, R. Pektas, C. Celik, S. B. Tank, F. Takahashi, M. Nakanishi, R. Yoshimura, Y. Ikeda, and T. Komut: Preliminary results of multidisciplinary observations before, during and after Kocaeli (Izmit) earthquake in the western part of the North Anatolian Fault Zone, *Earth, Planets and Space*, 52, pp.293-298, 2000.
- Nishigami, K.: Deep crustal heterogeneity along and around the San Andreas fault system in central California and its relation to the segmentation, *J. Geophys. Res.*, pp.7983-7998, 2000.
- Tadokoro, K., M. Ando, and K. Nishigami: Induced earthquakes accompanying the water injection experiment at the Nojima fault zone, Japan: Seismicity and its migration, *J. Geophys. Res.*, pp.6089-6104, 2000.
- Nishigami, K., M. Ando, and K. Tadokoro: Seismic observation in the DPRI 1800m borehole drilled into the Nojima fault zone, southwest Japan, *The Island Arc*, pp.288-295, 2001.
- Tadokoro, K., K. Nishigami, M. Ando, N. Hirata, T. Iidaka, Y. Hashida, K. Shimazaki, S. Ohmi, Y. Kano, M. Koizumi, S. Matsuo, and H. Wada: Seismicity changes related to a water injection experiment in the Nojima fault zone, *The Island Arc*, pp.235-243, 2001.
- Hurukawa, N., N. Seto, H. Inoue, K. Nishigami, I. Marzouk, A. Megahed, E. M. Ibrahim, H. Murakami, M. Nakamura, T. Haneda, S. Sugiyama, T. Ohkura, Y. Fujii, H. M. Hussein, A. S. Megahed, H. F. Mohammed, R. Abdel-Fattah, M. Mizoue, S. Hashimoto, M. Kobayasi and D. Suetsugu: Seismological Observations in and around the southern part of the Gulf of Suez, Egypt, *Bull. Seismol. Soc. Am.*, pp.708-717, 2001.
- Ito, K. and H. Wada: Observation of micro earthquakes in the Atotsugawa) fault region, central Honshu, Japan: --Seismicity in the creeping section of the fault, *Seismic Process Monitoring*, Ogasawara, H., T. Yanagidani and M. Ando, (ed.), Rotterdam, Netherland, pp.229-243, 2001.
- Hiramatsu, Y., N. Hayashi, M. Furumoto and H. Katao: Temporal Changes in Coda Q-1 and b-value due to the Static Stress Change Associated with the 1995 Hyogo-ken Nanbu Earthquake, *J. Geophys. Res.*, p.11, 2000.
- Obana, K., H. Katao and M. Ando: Seafloor Positioning System with GPS-Acoustic Link for Crustal Dynamics Observation-a preliminary result from experiment in the sea-, *Earth Planets Space*, p.9, 2000.
- Yamada, T., M. Ando and H. Katao.: Rapid changes of the aftershock P axes 3 years after the 1995 Hyogo-ken Nanbu (Kobe) earthquake, *Geophys. Res. Lett.*, p.4, 2001.
- Yoshimura, R., and N. Oshiman: Edge-based finite element approach to the simulation of geoelectromagnetic induction in a 3-D sphere, *Geophysical Research Letters*, Vol.29, No.3, p.9, 2002.
- Oshiman, N., R. Yoshimura, T. Kasaya, Y. Honkura, Matsushima, S. Baris, C. Celik, M. K. Tuncer, and A. M. Isikara: Deep resistivity structure around the fault associated with the 1999 Kocaeli earthquake, Turkey, In *Seismotectonics in Convergent Plate Boundary*, Eds. Y. Fujinawa and A. Yoshida, Terra Scientific Publishing Company, Tokyo, pp.293-303, 2002.
- Matsushima, M., Y. Honkura, N. Oshiman, S. Baris, M.K. Tuncer, S.B. Tank, C. Celik, F. Takahashi, M. Nakanishi, R. Yoshimura, R. Pektas, T. Komut, E. Tolak, A. Ito, Y. Iio, and A.M. Isikara: Seismoelectromagnetic effect associated with the Izmit earthquake and its aftershock, *Bulletin of the Seismological Society of America*, Vol.92, No.1, pp.350-360, 2002.
- Ohya, Fumio, Masahiro Teraishi, Tamotsu Furuzawa and Yasumi Sonoda: Measurement of Earth Tidal Tilts with a Liquid-tube Tiltmeter of Half-filled type, *J. Geode. Sci. Japan*, pp.58-63, 2001.
- Harada, Masataka, Tamotsu Furuzawa, Fumio Ohya, Wataru Morii and Masaru Yamada: Measurement of Earth Tidal strain in Amagase Observatory, *J. Geode. Sci. Japan*, pp.476-481, 2001.
- Watu Morii: A New Method of Spectral Analysis Based on the Technique of the AM Receiver, *Journal of the Geodetic Society of Japan*, pp.294-299, 2001.
- Shito, Azusa and Shibutani, Takuo: Upper mantle transition zone structure beneath the Philippine Sea region, *Geophys. Res. Lett.*, 28, pp.871-874, 2001.

- Ohmi, S. and Hori, S.: Seismic wave conversion near the upper boundary of the Pacific plate beneath the Kanto district, Japan, *Geophys. J. Int.*, No.141, pp.136-148, 2000.
- Tadokoro, K., Nishigami, K., Ando, M., Hirata, N., Iidaka, T., Hashida, Y., Shimazaki, K., Ohmi, S., Kano, Y., Koizumi, M., Matuso, S., and Wada, H.: Seismicity changes related to a water injection experiment in the Nojima Fault zone, *The Island Arc*, No.10, pp.235-243, 2001.
- Xu P.L.: Random Simulation and GPS Decorrelation, *Journal of Geodesy*, No.75, pp.408-423, 2001.
- Xu P.L., S. Shimada, Y. Fujii and T. Tanaka: Invariant Geodynamical Information in Geometric Geodetic Measurements, *Geophysical Journal International*, No.142, pp.586-602, 2000.
- Xu P.L., S.Shimada, Y. Fujii and T. Tanaka: The Geodynamical Value of Historical Geodetic Measurements: A Theoretical Analysis, *Earth Planets Space*, No.52, pp.993-997, 2000.
- Xu P.L. and S. Shimada: Least Squares Estimation in Multiplicative Noise Models, *Communications in Statistics*, B29, pp.83-96, 2000.
- Bogdan,Enescu and K. Ito, 2001, Some precursory phenomena of the 1995 Hyogo-ken Nanbu earthquake: Seismicity, b-value and fractal dimension, *Tectonophysics*, 338,(3-4), 297-314.
- Kodaira, S., E.Kurashimo, J-O Park,N. Takahashi, A. Nakanishi, S. Miura, T. Iwasaki, N. Hirata, K. Ito and Y. Kaneda, 2002, Structural factors controlling the rupture process of a megathrust earthquake at the Nankai trough seismogenic zone, *Geophys. J. Int.*, 149, 815-835
- Enescu, B. and K. Ito, 2002, Spatial analysis of the frequency-magnitude distribution and decay rate of aftershock activity of the 2000 Western Tottori earthquake, *EPS*, 54, 847-859.
- Ohmura,T., T.Moriya, C.Piao, T.Iwasaki, T.Yoshii, S.Sakai, T.Takeda, K.Miyashita. F.Yamazaki, K.Ito, A.Yamazaki, Y.Shimada, K.Tashiro and H.Miyamachi, 2001, Crustal structure in and around the region of the 1995 Kobe earthquake deduced from a wide-angle and refraction seismic exploration, *The Island arc*, 10, 215-227.
- Ito,K, and B.Enescu, 2001, Heterogeneous structure and b and p values relating to the rupture of the 2000 Tottori-ken Seibu earthquake, *Proc. Int. Symp. Slip and Flow Processes in and below the seismogenic region*, 491-496.
- Tabei, T.,Hashimoto, M., S. Miyazaki, K. Hirahara, F. Kimata, T. Tanaka, Y. Eguchi, T. Takaya, Y. Hoso, F. Ohya, and T. Kato, 2002, Subsurface structure and faulting of the Median Tectonic Line, southwest Japan inferred from GPS velocity field, *Earth Planets and Space*, Vol.54, 1065-1070.
- Xu P.L., (2003), Nonlinear Filtering of Continuous systems: Foundational Problems and New Results, *Journal of Geodesy*, 77, pp.247-256.
- Xu P.L., (2003), A Hybrid Global Optimization Method: he Multi-dimensional Case, *Journal of computational and applied Mathematics*, 155, 423-446.
- Xu P.L., (2003), Numerical Solution for Bounding Feasible Point Sets, *Journal of computational and applied Mathematics*, 156, 401-419.
- Xu P.L., (2002), New Challenges in Connection with Precise GPS Positioning, *IAG Proc.* 125, pp.359-364. (invited but fully reviewed)
- Xu P.L., (2002), Isotropic Probabilistic Models for Directions, Planes and Referentials, *Proceedings of the Royal Society London, Series A*, 458, 2017-2038.
- Xu P.L., (2002), A Hybrid Global Optimization Method: One-dimensional Case, *Journal of computational and applied Mathematics*, 147, 301-314.
- Xu P.L., (2001), Random Simulation and GPS Decorrelation, *Journal of Geodesy*, 75, 408-423
- Xu P.L., Shimada, S., Fujii, Y. & Tanaka T., (2000), Geodynamical Value of Historical Geodetic Measurements, *Earth Planets Space*, 52, 993-997.
- Xu P.L., Shimada, S., Fujii, Y. & Tanaka T., (2000), Invariant Geodynamical Information in Geometric Geodetic Measurements, *Geophysical Journal International*, 142, 586-602.
- Xu P.L. & S. Shimada (2000), Least Square Estimation in Multiplicative Noise Models, *Communications on Statistics*, B29, 83-96.
- Nishigami, K., Deep crustal heterogeneity along and around the San Andreas fault system in central California and its relation to the segmentation, *J. Geophys. Res.*, 105, 7983-7998, 2000.
- Tadokoro, K., M. Ando, and K. Nishigami, Induced earthquakes accompanying the water injection experiment at the Nojima fault zone, Japan: Seismicity and its migration, *J. Geophys. Res.*, 105, 6089-6104, 2000.
- Nishigami, K., M. Ando, and K. Tadokoro, Seismic observation in the DPRI 1800m borehole drilled into the Nojima fault zone, southwest Japan, *The Island Arc*, Vol.10, 288-295, 2001.
- Tadokoro, K., K. Nishigami, M. Ando, N. Hirata, T. Iidaka, Y. Hashida, K. Shimazaki, S. Ohmi, Y. Kano, M. Koizumi, S. Matsuo, and H. Wada, Seismicity changes related to a water injection experiment in the Nojima fault zone, *The Island Arc*, Vol.10, 235-243, 2001.
- Hurukawa, N., N. Seto, H. Inoue, K. Nishigami, I. Marzouk, A. Megahed, E. M. Ibrahim, H. Murakami, M. Nakamura, T. Haneda, S. Sugiyama, T. Ohkura, Y. Fujii, H. M. Hussein, A. S. Megahed, H. F. Mohammed, R. Abdel-Fattah, M. Mizoue, S. Hashimoto, M. Kobayasi and D. Suetsugu, Seismological Observations in and around the southern part of the Gulf of Suez, *Egypt, Bull. Seismol. Soc. Am.*, 91, 708-717, 2001.
- Hiramatsu, Y., Yamanaka, H., Tadokoro, K., Nishigami, K., and Ohmi, S., Scaling law between corner frequency and seismic moment of microearthquakes: Is the breakdown of the cube law a nature of earthquakes, *Geophys. Res. Lett.*, 29, 52-1-52-4, 2002.
- Hiramatsu, Y., M. Furumoto, K. Nishigami, and S. Ohmi, Initial rupture process of microearthquakes recorded by high sampling borehole seismographs at the Nojima fault, central

- Japan, *Phys. Earth Planet. Inter.*, 132, 269-279, 2002.
- Tadokoro, K., M. Ando, S. Baris, K. Nishigami, M. Nakamura, S. B. Ucer, A. Ito, Y. Honkura, and A. M. Isikara, Monitoring of fault healing after the 1999 Kocaeli, Turkey, earthquake, *J. Seismol.*, 6, 411-417, 2002.
- Tsuruga, K., K. Yomogida, H. Ito and K. Nishigami, Detection of localized small-scale heterogeneities in the Hanshin-Awaji region, by anomalous amplification of coda level, *Bull. Seis. Soc. Amer.* 93, 1516-1530, 2003.
- Petukhin, A., Irikura, K., Ohmi, S., and Kagawa, T., 2003, Estimation of Q-values in the seismogenic and aseismic layers in the Kinki region, Japan, by elimination of the geometrical spreading effect using ray approximation, *Bull. Seism. Soc. Am.*, 93, 1498-1515.
- Ohmi, S. and Obara, K., 2002, Deep Low-Frequency Earthquakes beneath the Focal Region of the Mw 6.7 2000 Western Tottori Earthquake, *Geophys. Res. Lett.*, 10.1029/2001GL014469.
- Ohmi, S., Watanabe, K., Shibutani, T., Hirano, N., and Nakao, S., 2002, The 2000 Western Tottori Earthquake - Seismic Activity Revealed by the Regional Seismic Networks -, *Earth, Planets and Space*, 54, 819-830.
- Tadokoro, K., Nishigami, K., Ando, M., Hirata, N., Idaka, T., Hashida, Y., Shimazaki, K., Ohmi, S., Kano, Y., Koizumi, M., Matuso, S., and Wada, H., 2001, Seismicity changes related to a water injection experiment in the Nojima Fault zone., *The Island Arc.*, 10: 235-243
- Honkura, Y., M.Matsushima, N.Oshiman, M.K.Tuncer, S.Baris, A.Ito, Y.Iio, and M.Isikara, Small electric and magnetic signals observed before the arrival of seismic wave, *Earth, Planets and Space*, 54, e9-e12, 2002.
- Chandrasekhar, E., N.Oshiman and K.Yumoto, On the role of oceans in the geomagnetic induction by  $S_q$  along the 210° magnetic meridian region, *Earth, Planets and Space*, 55, 315-326, 2003
- Tank, S.B., Y.Honkura, Y.Ogawa, N.Oshiman, M.K.Tuncer, M.Matsushima, C.Celik, E.Tolak, and A.M.Isikara, Resistivity structure in the western part of the fault rupture zone associated with the 1999 Izmit earthquake and its seismogenic implication, *Earth, Planets and Space*, 55, 437-442, 2003
- Y.Umeda, The 2000 western Tottori earthquake, *Earth Planets Space*, Vol.54 No.8, 3-4, 2002
- Kitajima, T., Y. Kobayashi, R. Ikeda, Y. Iio, and K. Omura, 2001. Terrestrial heat flow in Hirabayashi, Awaji, Island, Island Arc, *The Island Arc*, 10, pp326-335, 2001.
- Ikeda, R., Y. Iio and K. Omura, In-situ stress measurements in NIED borehole in and around the fault zone near the 1995 Hyogo-ken Nanbu earthquake, Japan, *The Island Arc*, 10, pp252-260, 2001.
- Ogasawara, H., S. Sato, S. Nishii, H. Ishii, Y. Iio, S. Nakao, M. Ando, N. Nagai, T. Ohkura, A. Cichowicz, H. Kawakata, K. Kusunose, T. Satoh, A. Cho, N. Sumitomo, R. W. E. Green, M. O. Kataka, Semi-controlled seismogenic experiments in South African deep gold mines, In *Rockbursts and Seismicity in Mines - RaSim5* (G. van Aswegen et al. eds). South African Institute of Mining and Metallurgy, pp293-300, 2001.
- Rydelek, PA., S. Horiuchi, Y. Iio. Spatial and temporal characteristics of low-magnitude seismicity from a dense array in western Nagano Prefecture, Japan, *Earth Planets Space*, 54, pp81-89, 2002.
- Iio, Y., Y. Kobayashi and T. Tada, Large earthquakes initiate by the acceleration of slips on the downward extensions of seismogenic faults, *Earth Planet. Sci. Lett.*, 202, pp337-343, 2002.
- Iio, Y., T. Sagiya, Y. Kobayashi and I. Shiozaki, Water-weakened lower crust and its role in the concentrated deformation in the Japanese Islands, *Earth Planet. Sci. Lett.*, 203, pp245-253, 2002.
- Iio, Y., S. Horiuchi, S. Baris, C. Celik, J. Kyomen, B. Ucer, Y. Honkura, and A. M. Isikara, Aftershock distribution in the eastern part of the aftershock region of the 1999 Izmit, Turkey earthquake, *Bull. Seism. Soc. Am.*, 92, pp411-417, 2002.
- Ogasawara, H., K. Fujimori, N. Koizumi, N. Hirano, S. Fujiwara, S. Otsuka, S. Nakao, K. Nishigami, K. Taniguchi, Y. Iio, R. Nishida, K. Oike, Y. Tanaka, Microseismicity induced by heavy rainfall around flooded vertical ore veins. *Pure Appl. Geophys.* 159, pp91-109, 2002.
- Iio, Y., and Y. Kobayashi, A physical understanding of large intraplate earthquakes, *Earth Planets Space*, 54, pp1001-1004, 2002.
- Sagiya, T., T. Nishimura, Y. Iio, and T. Tada, Crustal deformation around the northern and central Itoigawa-Shizuoka Tectonic Line, *Earth Planets Space*, 54, pp1059-1063, 2002.
- Iio, Y., and Y. Kobayashi, Is the plastic flow uniformly distributed below the seismogenic region, *Earth Planets Space*, 54, pp1085-1090, 2002.
- Bruce E. H., H. Tanaka, and Y. Iio, Acceleration of slip motion in deep extensions of seismogenic faults in and below the seismogenic region, *Earth Planets Space*, 54, pp1195-1205, 2002.
- Shibazaki, B., H. Tanaka, H. Horikawa, and Y. Iio, Modeling slip processes at the deeper part of the seismogenic zone using a constitutive law combining friction and flow laws, *Earth Planets Space*, 54, pp1211-1218, 2002.
- Ito, K., H. Sato, H. Kanazawa, N. Kawame, O. Tamada, K. Miyazaki, S. Uehara, Y. Iio, H. Takei, T. Kitazawa, M. Koike, Y. Matsushita, Y. Ito, First synthesis of olivine single crystal as large as 250 carats, *J. Crystal Growth*, 253, pp557-561, 2003.
- Iio, Y., and Y. Kobayashi, Is the plastic flow uniformly distributed below the seismogenic region, *Tectonophysics*, 346, pp43-53, 2003.
- Hiramatsu, Y., N. Hayashi, M. Furumoto and H. Katao, Temporal Changes in Coda Q-1 and b-value due to the Static Stress Change Associated with the 1995 Hyogo-ken Nanbu Earthquake, 105, B3, 6141-6151, 2000.
- Obana, K., H. Katao and M. Ando, Seafloor Positioning System

- with GPS-Acoustic Link for Crustal Dynamics Observation -a preliminary result from experiment in the sea-, *Earth Planets Space*, 52, 415-423, 2000.
- Yamada, T., M. Ando and H. Katao, Rapid changes of the aftershock P axes 3 years after the 1995 Hyogo-ken Nanbu (Kobe) earthquake, *Geophys. Res. Lett.*, 28, 37-40, 2001.
- Yamanaka, H., Y. Hirasu and H. Katao, Spatial distribution of atypical aftershocks of the 1995 Hyogo-ken Nanbu earthquake, *Earth Planets Space*, 54, 933-945, 2002.
- Nakamura, M., Y. Yoshida, D. Zhao, H. Katao and S.Nishimura, Three-dimensional P- and S-wave Velocity Structures beneath the Ryukyu Arc, *Tectonophys*, 369, 121-143, 2003.
- Nakamura, M. and H. Katao, Microearthquakes and faulting in the southern Okinawa Trough, *Tectonophys*, 372, 167-177, 2003
- Kito, T., T. Shibutani and K. Hirahara, Scattering objects in the lowermost mantle beneath northeastern China observed with a short-period seismic array, *Phys. Earth Planet. Int.*, 138, pp. 55-69, 2003.
- Yamauchi, M., K. Hirahara and T. Shibutani, High resolution receiver function imaging of the seismic velocity discontinuities in the crust and the uppermost mantle beneath southwest Japan, *Earth Planets Space*, 55, pp. 59-64, 2003.
- Shibutani, T., S. Nakao, R. Nishida, F. Takeuchi, K. Watanabe and Y. Umeda, Swarm-like seismic activity in 1989, 1990 and 1997 preceding the 2000 Western Tottori Earthquake, *Earth Planets Space*, 54, pp. 831-845, 2002.
- Matsubara, M., N.Hirata, S.Sakai and I.Kawasaki, A low V zone beneath the Hida mountains derived from a dense array observation and tomographic method, *Earth Planet Space*, 52, 143-154, 2000.
- Kawasaki, I., Y. Asai and Y. Tamura, Space time distribution of interplate moment release including slow earthquakes and the seismo geodetic coupling in the Sanriku-oki region along the Japan trench, *Tectonophysics*, 330, 267-283, 2000.
- Kusakabe, M., M. Ohwada, H. Satake, K. Nagao, I. Kawasaki, Helium isotopic ratios and geochemistry of volcanic fluid from the Norikura volcanic chain, central Japan: implications for crustal structures and seismicity, *Society of Economic Geologists special publications* 10, 75-89, 2003.
- Takuo Shibutani, Setsuro Nakao, Ryohei Nishida, Fumiaki Takeuchi, Kunihiko Watanabe, Yasuhiro Umeda: Swarm-like seismic activity in 1989,1990 and 1997 preceding the 2000 Western Tottori Earthquake, *Earth Planets Space*, 54, 831-845, 2002
- S.Ohmi, K.Watanabe, T.Shibutani, N.Hirano and S.Nakao: The 2000 Western Tottori Earthquake - seismic activity revealed by the regional seismic networks -, *Earth, Planets and Space*, Vol.54, No.8, 819-830, 2002.
- T.Shibutani, S.Nakao, R.Nishida, F.Takeuchi, K.Watanabe and Y.Umeda: Swarm-like seismic activity in 1989, 1990 and 1997 preceding the 2000 Western Tottori Earthquak, *Earth, Planets and Space*, Vol.54, No.8, 831-846, 2002.
- (A2) Refreed papers (6 paper)**  
(papers in Japanese, 15)
- Kensuke Onoue, Atsushi Mukai and Shuzo Takemoto: Tidal Strains Observed with Extensometers in Donzurubo Observatory, Nara, Japan, *Journal of Geodetic Society of Japan*, p.7, 2001.
- Masatake Harada, Tamotsu Furuzawa, Masahiro Teraishi, Fumio Ohya: Temporal and spatial correlations of the strain field in tectonic active region, southern Kyusyu, Japan, *Journal of Geodynamics* 35 pp.471-481,2003.
- Mori, J., R.E. Abercrombie, H. Kanamori, Stress drops and radiated energies of the Northridge aftershocks, *J. Geophys. Res.* (in press).
- Ma, K-F., E. Brodsky, H. Kanamori, J. Mori, A. Song, Evidence for Fault Lubrication during the 1999 Chi-Chi, Taiwan, Earthquake (Mw7.6). *Geophys. Res. Lett.*, 30, 10.1029/2002GL015380, 2003.
- Negishi,H., J. Mori, T. Sato, R. Singh, S. Kumar, N. Hirata, Size and Orientation of the Fault Plane for the 2001 Gujarat, India Earthquake (Mw7.7) from Aftershock Observations: A High Stress Drop Event, *Geophys. Res. Lett.*, 29, 10.1029/2002GL015280, 2002.
- Mori, J., H. Ito, C.-Y. Wang, Chelungpu faults drilling could resolve seismological issues, *Eos, Transactions, Am. Geophys. Un.*, 83, 255-256, 2002
- (A3) Abstract refreed papers (9 papers)**  
(papers in Japanese, 13)
- Bogdan, Enescu and K. Ito: Some precursory phenomena of the 1995 Hyogo-ken Nanbu earthquake, Seismicity, b-value and fractal dimension, *Tectonophysics*, 338, (3-4), pp.297-314, 2001.
- Nakagawa, Y. and I.Kawasaki, New plate boundary: A two component modelling for surface displacements by GPS observation of GSJ in the Chubu district, central Japan, *International Symposium on GPS, Program and Abstracts* 01-14, 1999.
- Funo, K, I.Kawasaki , Y.Imanishi, J.Funasaki and O.Kamigaichi, A Preliminary Report on a Search for D" Layer Silent Earthquakes by the Matsushiro 100m Extensometer Records of JMA, EOS, *Transactions, American Geophysical Union*, 80, F761, 1999.
- Iwaoka, Y., Y.Nakagawa, I.Kawasaki, H.Wada, K.Ito and S.Ohmi, Earthquake Swarm in the Hida Mountains, Central Japan, and its Relationship to Geological Structure, EOS, *Transactions, American Geophysical Union*, 80, F725, 1999.
- Miyabayashi, M., I.Kawasaki, Y.Imanishi, Y.Nishimae, S.Wakui and O.Kamigaichi, Seismic Core Modes Observed by the Seismic Strains Records of the 100m Quarts Tube Extensometers at the Matsushiro Seismological Observatory of JMA, EOS, *Transactions, American Geophysical Union*, 80,

- S222, 1999.
- Kawasaki, I.: Are Mw6 class silent earthquakes in and around the Boso peninsular, nucleation phases that were not accelerated and died out, EOS, Transactions, American Geophysical Union, 81, WP132, 2000.
- Kawasaki, I.: Segregation of Source Areas of Slow Slip Events and Asperities of Major Seismic Events on the Subduction Interface Around the Japanese Islands, American Geophysical Union 2002 Fall Meeting, G61A 0975, 2002.
- Kawasaki, I.: A search for D" layer silent earthquake using the SG records at Canberra, Australia, and the extensometer records at Matsushiro, Japan, SEDI2002 8th Symposium, Tahoe City, California, USA, S7 22, 2002.
- Kawasaki, I.: Silent earthquakes occurring in a transition zone and its implication for earthquake prediction, IUGG2003, Sapporo, Japan, JSS01/30A/D-042, 2003.
- (B) Research reviews (1 review)**  
(reviews in Japanese, 7)
- Nishigami, K., Seismological investigation of deep structure of active faults using scattered waves and trapped waves, Seismogenic Process Monitoring, Ed. by Ogasawara, H., T. Yanagidani, and M. Ando, Rotterdam, Balkema, 245-256, 2002.
- (C) Books**  
(papers in Japanese, 2)
- (D) Research papers in bulletins and reports (3 papers)**  
(papers in Japanese, 109)
- Oshiman, N., Y. Honkura, M. Matsushima, S. Baris, C. Celik, M.K. Tuncer, and A.M. Isikara: Deep resistivity structure around the fault associated with the 1999 Kocaeli earthquake, Turkey, Proc. International Workshop on Seismotectonic at the Subduction Zone, pp.313-325, 2000.
- Enescu, B. and K. Ito, 2002, Temporal and spatial variations of seismicity during the 1998 Hida Mountain earthquake swarms, Annuals, Disas. Prev. Res. Inst, Kyoto Univ.45B , 591-594.
- Enescu, B. and K. Ito, 2003, Values of b and p: their variations and relation to physical processes for earthquakes in Japan, Annuals, Disas. Prev. Res. Inst, Kyoto Univ., 46B, 709-719.
- (F) Articles in newspapers and magazines**  
(papers in Japanese, 90)
- (G1) Papers presented at research meetings**  
(90 papers)  
(papers in Japanese, 159)
- Hashimoto, M.: A simulation of activity of large earthquakes in and around the Japanese islands with interacting fault system model, "Active Fault Research for the New Millennium", Proceedings of the HOKUDAN International Symposium and School on Active Faulting", pp.99-102, 2000.
- R. Yoshimura and N. Oshiman: Development of a numerical simulator by FEM using edge-element for electromagnetic induction in a 3-D sphere, IAGA-IASPEI 2001 ABSTRACTS, pp.85-86, 2001.
- N. Oshiman, R. Yoshimura, T. Kasaya, Y. Honkura, M. Matsushima, S. Baris, C. Celik, M.K. Tuncer, E. Tolak, and A.M. Isikara: Deep resistivity structure in the western part of the north Anatolian fault zone, Turkey, IAGA-IASPEI 2001 ABSTRACTS, p.74, 2001.
- Joint Group for the Dense Aftershock Obs.: Very Dense Aftershock Observation of the 2000 Tottori-ken Seibu Earthquake (M<sub>JMA</sub>=7.3) in the Southwestern Honshu, Japan -- Aftershock Distribution, Focal Mechanisms, 3-D Structure in the Source Region and Their Relationship to the Source Process, Eos, Transactions, AGU, 2001 Fall Meeting, Vol.82, S41A-0595, 2001.
- Nakamura, K., K.S.Ony, M.Gamal, Y.P.Tedy, I.S., Widhie, A.K.Mipiand and Z.A.Hasanudin: Gravity Survey around Guntur Volcano, Abstract of IAVCEI General Assembly 2000, p.1, 2000.
- Ito, K. and Shibutani, T.: Seismogenic layer and crustal structure in southwest Japan, SEISMIX 2000, Norway Abstract, p71, 2000.
- Kurashimo, E., M.Tokunaga, T.Iwasaki, N.Hirata, S.Kodaira, Y.Kaneda, K.Ito, R.Nishida and T.Ikawa, Deep structure beneath the eastern Shikoku, SW Japan, revealed by seismic refraction/wide-angle reflection profiling, SEISMIX 2000, Norway Abstract, p70, 2000.
- Otsuka, K., T.Moriya, S.Sakai, T.Yoshii, T.Koizumi, Y.Yamazaki, Y.Sasaki, K.Ito, K.Matsumura, and K. Tazaki, Crustal structure of Fujihashi-Kamigori profile in the western part of Honshu, Japan, by refraction and wide-angle reflection experiment, SEISMIX 2000, Norway Abstract, p72, 2000.
- Fujisawa, Y. and K. Ito: Three dimensional P and S wave velocity structure, in the Hida Mountains, central Honshu, Japan, AGU, 2000 Fall Meeting, EOS. Vol.81, F209, 2000.
- Ito, K. and B.Enescu: Heterogeneous structure and b and p values relating to the rupture of the 2000 Tottori-ken Seibu earthquake, Proc. Int. Symp. Slip and Flow Processes in and below the seismogenic region, 491-496, 2001..
- Ito, K. and K., Yoshii: Crustal structure reflectors and seismogenic layer in the northern Kinki district, southwest Japan: Relationship between crustal structure and seismic activity, IAGA-IASPEI Joint Meeting, Hanoi, Vietnam, Abstracts, p.360, 2001.
- Enescu, B. and K., Ito: Spatial variations in b and p values for the aftershocks of the 2000 Tottori-ken-seibu earthquake, southwest Japan and their relation to the source process of the main shock, IAGA-IASPEI Joint Meeting, Hanoi, Vietnam, Abstracts, p.289, 2001.
- Enescu, B. and K., Ito: Temporal and spatial variations in b-values during the 1998-1999 Hida Mountain earthquake swarm,



- central Honshu, Japan, IAGA-IASPEI Joint Meeting, Hanoi, Vietnam, Abstracts, p.289, 2001.
- Ito, K., T. Shibutani: Seismogenic layers and Seismic reflective layer in the Crust, in southwest Japan, WPGM, Abstract(CD-ROM), 2001.
- Enescu, B., K. Ito and Struzik, Z R.: (Multi) fractality of Earthquakes by use of Wavelet Analysis, AGU 2002 Fall Meeting, Abstract (CD-ROM) 2002.
- Ito, K., and B. Enescu. Variations in b- and p-Value Seismicity Parameters and Their Relation to Physical Processes for Earthquakes in Japan, AGU 2002 Fall Meeting, Abstract (CD-ROM) 2002.
- Ito, K., T. Ueno, K. Yoshii, H. Wada: Crustal structure and seismogenic layer in southwest Japan, SEISMIX 2003, Newzealand, Programme and Abstract, p120, 2003.
- Enescu, B., K. Ito, M. Radulian, E. Popescu and O. Bazacliu: Multifractal and chaotic properties of Vrancea Romania) intermediate-depth earthquakes -Analysis of the temporal distribution of events-. IUGG, Sapporo Abstract, (CD-ROM), 2003.
- Ito, K., H. Wada, S. Ohmi, T. Ueno, and K. Yoshii: Detailed Seismicity and crustal structure in the Atotsugawa fault system, partly creeping fault, central Honshu, Japan, IUGG, Abstract (CD-ROM) 2003
- Enescu, B. and K. Ito: b and p value seismicity parameters: Variation and relation to physical processes for earthquakes in Japan, IUGG, Sapporo, Abstract (CD-ROM) 2003.
- Sato, K., M. Hashimoto, Y. Hosono, 2003, Development of a monitoring technique of anomalous crustal deformations preceding large earthquakes with the application of kinematic GPS, IUGG2003, G01/03P/D-022.
- Hashimoto, M., Y. Umeda, K. Onoue, F. Ohya, Y. Hosono, and K. Sato, 2003, Interplate coupling derived from the GPS traverse across the hinge-line in Kii peninsula and its implication to preseismic changes in groundwater level before the 1946 Nankai earthquake, IUGG2003, JSG01/07P/A01-007.
- Nishimura, S. and M. Hashimoto, 2003, A model with rigid rotations and slip deficits for the GPS derived velocity field in southwest Japan, IUGG2003, JSG01/08P/D-005.
- Hashimoto, M., 2003, Interplate coupling derived from GPS surveys in Kii peninsula and its implication to the groundwater changes preceding the 1946 Nankai earthquake, presented at the 2<sup>nd</sup> Taiwan-Japan International Workshop on Hydrological and Geochemical Research for Earthquake Prediction, 13-26.
- Ito, T., and M. Hashimoto, 2003, Spatio-temporal distribution of interplate coupling in southwest Japan deduced from inversion analysis, IUGG2003, JSG01/08P/D-004.
- Hashimoto, M., T. Ito, T. Tabei, and T. Sagiya, 2003, Postseismic deformation following the 2000 western Tottori earthquake, Southwest Japan, using GEONET and urgent campaign GPS data, IUGG2003, JSG01/08P/D-016.
- Hashimoto, M., H. Hayashi, H. Kawakata, Y. Kawata, K. Irikura, and S. Ikebuchi, 2003, The DPRI-KU satellite office for outreach supported by the 21st Century Center of Excellence Program, IUGG2003, SS05/10A/A13-004.
- Koyama, M., K. Nakagawa, M. Hashimoto, E. Kuwabara, M. Takahashi, K. Irikura, A.D.2002 Members ( the Committee for Future Planning of the Seismological Society of Japan ), A.D.1999-2001 Members ( the Committee for School Education of the Seismological Society of Japan ), Voluntary Members, 2003, Education program for children and youth by the Seismological Society of Japan, IUGG2003, SS05/10A/A13-011.
- Tabei, T., Y. Ohta, M. Hashimoto, and S. Miyazaki, 2002, Three-dimensional crustal velocity field of the Nankai forearc, southwest Japan: Oblique subduction and forearc slip, presented at AGU2002 fall Meeting, G71A-0944.
- Sato, K., M. Hashimoto, F. Ohya, and Y. Hosono, 2002, Time-varying deformation observed by a GPS traverse campaign across the Yamasaki fault, SW Japan, presented at AGU2002 fall Meeting, G71A-0953.
- Hashimoto, M., and T. Ito, 2002, Re-examination of the postseismic deformation following the 2000 Western Tottori Earthquake, Southwest Japan, presented at AGU2002 fall Meeting, G21A-0956.
- Nishimura, S., M. Hashimoto, and M. Ando, 2002, A rigid block rotation model for the GPS derived velocity field along the Ryukyu arc and its implication for backarc spreading along the Okinawa trough, presented at AGU2002 fall Meeting, T62C-1320.
- Tabei, T., K. Ooba, M. Hashimoto, T. Ito, and Y. Hosono, 2001, Postseismic deformations following the 2000 Western Tottori earthquake detected by dense GPS observations, presented at AGU2001 fall Meeting, G22D-03
- Ito, T., and M. Hashimoto, 2001, Migrating crustal deformation from GEONET observations, presented at AGU2001 fall Meeting, G31A-0122.
- Hashimoto, M., 2001, Simulation of seismicity in the Japanese Islands with an interacting fault system model derived from geodetic data, presented at AGU2001 fall Meeting, NG31A-0356.
- Hashimoto, M., 2001, Simulation of complex recurrence behavior of earthquakes with an interacting fault system model, 2<sup>nd</sup> ACES Workshop Proceedings, 241-245.
- Xu, P.L., 2003, Nonlinear Filtering of Continuous Systems, IUGG 2003, Sapporo
- Xu, P.L. 2003, Statistical and Geometrical Aspects in GPS Mathematical Models, IUGG 2003, Sapporo
- Xu, P.L. 2001, GPS Ambiguity Decorrelation, IAG Scientific Meetings, Budapest
- Nishigami, K. and the Research Group for Water Injection Experiment at the Nojima Fault: Repeated water injection experiments at the Nojima fault-Fault healing process and induced earthquakes-, AGU2000, 2000.
- Nishigami, K., T. Mizuno, K. Tadokoro, and A. Shimokawa: Fault-zone structure of the 2000 western Tottori, Japan,

- earthquake-Event array analysis of fault-zone trapped waves-, AGU2001, 2001.
- K. Nishigami, I. Doi, K. Tadokoro, and A. Shimokawa: 3-D distribution of S wave reflectors and scatterers in the source region of the 2000 Western Tottori, Japan, earthquake, AGU2002, 2002.
- Nishigami, K. and the Research Group of Water Injection Experiment at Nojima: Repeated Water Injection Experiments at the Nojima Fault-Study of Fault Healing Process and Induced Earthquakes-, IUGG2003, 2003.
- Nishigami, K., I. Fujisawa, K. Tadokoro, K. Ito, and H. Wada: Seismological investigation of deep structure of the Atotsugawa fault, central Japan, IUGG2003, 2003.
- Ohmi, S. and Mori, J, Deep Low-frequency earthquakes Associated with Active Faults in Central - Southwest Japan, XXIII General Assembly of the IUGG, SS01/03A/D-003, 2003.
- Ohmi, S., Deep Low-Frequency Earthquakes Associated With Active Faults in Central - Southwest Japan, Eos Trans. AGU, 2001 Fall Meeting, S31D-12, 2001.
- Oshiman, N., R. Yoshimura, T. Kasaya, Y. Honkura, M.Matsushima, S.Baris, C. Celik, M.K.Tuncer, E. Tolak, and A.M.Isikara, Deep resistivity structure in the western part of the North Anatolian Fault Zone, Turkey, The 2001 IAGA-IASPEI joint scientific assembly, Vietnam., G1.15, 1536, 2001.
- Oshiman, N., Y. Sasai, Y. Honkura, Y. Ishikawa and S. Koyama, Local geomagnetic changes observed in association with earthquake swarm activities in the Izu peninsula, Japan, The 2001 IAGA-IASPEI joint scientific assembly, Vietnam., G1.02, 2016, 2001.
- Chandrasekhar, E., N.Oshiman and K.Yumoto, Upper mantle Electromagnetic Response to Geomagnetic Sq Variation and its associated Equivalent Ionospheric Source Current System over the 210° Magnetic Meridian region, The 2001 IAGA-IASPEI joint scientific assembly, Vietnam., G1.11, 1298, 2001.
- Oshiman, N., K Aizawa and I. Shiozaki, Deep crustal resistivity structure in and around the focal area of the 2000 Tottori-ken seibu earthquake, Japan, IUGG2003, Sapporo Japan, JSA.10/30P/D-005, 2003.
- Tank, S.B., Y. Honkura, Y. Ogawa, N. Oshiman, M. K.Tuncer, M. Matsushima, C. Celik, and E. Tolak, Resistivity structure of the western part of the north Anatolian fault zone by magnetotellurics method, IUGG2003, Sapporo Japan, GAI.08/08A/A14-007, 2003.
- Tank, S.B., Y. Honkura, Y. Ogawa, N. Oshiman, M. K.Tuncer, M. Matsushima, C. Celik, and E. Tolak, Magnetotelluric observations in the western part of the north Anatolian fault zone, IUGG2003, Sapporo Japan, GAI.08/08P/D-007, 2003.
- Kasaya, T., N. Oshiman and I. Shiozaki, Resistivity structure around the earthquake swarm area of the northern Hyogo prefecture, IUGG2003, Sapporo Japan, JSA.10/30P/D-004, 2003.
- Shiozaki, I., N. Oshiman, T. Kasaya, T. Uto and T. Kagiya, Deep crustal resistivity structure derived from the wide band MT investigations in the eastern part of San-in region, southwestern Honshu, Japan, IUGG2003, Sapporo Japan, JSA.10/30P/D-006, 2003.
- Yamazaki, K., N. Oshiman, Y. Honkura, M. Uyeshima, S. Koyama, Y. Ishikawa and Y. Sasai, Geomagnetic changes observed in association with earthquake swarm activity in the Izu peninsula in 2002, IUGG2003, Sapporo Japan, JSA06/02P/D-005, 2003.
- Tuncer, M.K., C. Celik, N. Oshiman, Y. Honkura, A.M. Isikara, Continuous observations of the geomagnetic total intensity in the western part of the north Anatolian fault zone, Turkey, IUGG2003, Sapporo Japan, JSA06/02P/D-006, 2003.
- Murakami, H., T. Hashimoto, N. Oshiman and S. Yamaguchi, Monitoring of the evolution of permeability of an active fault after a large earthquake occurrence by electrokinetic method, IUGG2003, Sapporo Japan, JSS01/30A/D-051, 2003.
- Tomizawa, I., T. Fukumoto and N. Oshiman, Experimental results of transmitting high-frequency electric signal along the Nojima fault to investigate association with sesimo-events, IUGG2003, Sapporo Japan, JSA06/03A/A09-011. 2003.
- Iio, Y., S. Ohmi, R. Ikeda, E. Yamamoto, H. Ito, H. Sato, Y. Kuwahara, T. Ohminato, B. Shibazaki, and M. Ando, Slow Initial Phase of P-wave Velocity Pulses Observed in the Western Nagano Prefecture, Westren Pacific Geophysical Meeting, Tokyo, S42-B10, 2000.
- Iio, Y., S Horiuchi, R Ikeda, E Yamamoto, S Ohmi, B. Shibazaki, H Ito, H Horikawa, W.L.Ellsworth, H Sato, A whole life of a M3.9 earthquake inferred from seismicity and waveforms, Westren Pacific Geophysical Meeting, Tokyo, S52D-15, 2000..
- Iio, Y., and Kobayashi, Y., A physical understanding of the beginning of large earthquakes, US-Japan workshop on foreshock and rupture initiation, kyoto, Oct.2000.
- Iio et al., Three Dimensional P and S wave Velocity Structures in the Aftershock area of the 1984 Western Nagano Prefecture, Japan Earthquake - Implications for the Relationship between Structures and Earthquake Occurrences -, International Workshop on Physics of Active Fault, S2-5, 2002.
- Iio, Y., Kobayashi, Y., and Tada, T., Large earthquakes initiate by the acceleration of slips on the downward extensions of seismogenic faults, Westren Pacific Geophysical Meeting, Wellington (New Zealand), SE21A-05, 2002.
- Iio, Y., and Kobayashi, Y., A physical understanding of the beginning of large intraplate earthquakes, Westren Pacific Geophysical Meeting, Wellington (New Zealand), SE32E-01, 2002.
- Iio, Y., T. Sagiya, Y. Kobayashi, A new model of the earthquake cycle and stress accumulation of intraplate earthquakes, IUGG2003, JSS01/A03-002, 2003.
- Ogasawara, H., Y. Iio, The research group for SEESADGM, Semi-controlled earthquake-generation experiments in south African deep goldmines (2002-2006), IUGG2003, SS02/A03-014, 2003.

- Masaki KANAO, Takuo SHIBUTANI, Atsuki KUBO:  
Lithospheric shear velocity models beneath continental margins in Antarctica inferred from generic algorithm inversion for teleseismic receiver functions, IUGG2003 Program, SW03/10A/D-001, 2003
- Takashi TONEGAWA, Kazuro HIRAHARA, Takuo SHIBUTANI: RECEIVER FUNCTION IMAGE OF THE 410 AND 660KM SEISMIC VELOCITY DISCONTINUITIES BENEATH THE JAPAN ISLANDS, IUGG2003 Program, JSS06a/08P/D-017, 2003
- Kazuro HIRAHARA, Makiko YAMAUCHI, Takashi TONEGAWA, Takuo SHIBUTANI: HIGH-RESOLUTION RECEIVER FUNCTION IMAGING OF THE CRUST AND THE MANTLE BENEATH THE JAPAN ISLANDS, IUGG2003 Program, JSS06a/08P/D-016, 2003
- Takuo SHIBUTANI: RELATIONSHIP BETWEEN SOURCE PROCESS OF THE 2000 WESTERN TOTTORI EARTHQUAKE AND HETEROGENEOUS STRUCTURE ON THE MAINSHOCK FAULT, IUGG2003 Program, SS01/03A/D-018, 2003
- Shibutani, T.: Relationship Between Rupture Process and Heterogeneous Structure on the Mainshock Fault of the 2000 Western Tottori Earthquake, *Eos Trans. AGU*, 83 (47), Fall Meet. Suppl., S52B-1110, 2002
- Shito, A. and Shibutani, T.: Upper mantle structure beneath the Northern Philippine Sea region, *Eos Trans. AGU*, 83 (47), Fall Meet. Suppl., T72A-1222, 2002
- Yamauchi, M., Hirahara, K. and Shibutani, T.: High-Resolution Receiver Function Imaging of the Crust and the Uppermost Mantle Structure beneath the Japan Islands - Inclusion of Hi-net Data -, *Eos Trans. AGU*, 83 (47), Fall Meet. Suppl., S51A-1023, 2002
- Hirahara, K., Yamauchi, M., Tonegawa, T. and Shibutani, T., Progressively Improved Receiver Function Images of Upper Mantle Discontinuities beneath the Japan Islands, *Eos Trans. AGU*, 83 (47), Fall Meet. Suppl., S51A-1024, 2002
- Shito, A. and T. Shibutani, Anelastic Mantle Structure beneath the Northern Philippine Sea from Phase Pair Method, *Eos, Transactions, AGU*, 2001 Fall Meeting, Vol.82, T41C-0896, 2001
- Joint Group for the Dense Aftershock Obs, Very Dense Aftershock Observation of the 2000 Tottori-ken Seibu Earthquake (M<sub>JMA</sub>=7.3) in the Southwestern Honshu, Japan --- Aftershock Distribution, Focal Mechanisms, 3-D Structure in the Source Region and Their Relationship to the Source Process, *Eos, Transactions, AGU*, 2001 Fall Meeting, Vol.82, S41A-0595, 2001
- Fumiaki Takeuchi, Kazuo Matsumura, Kajuro Nakamura, Kunihiko Watanabe: High Bouguer Anomaly Measured Near and around the Yamasaki Fault, Southwest Japan, IUGG2003
- R. Yoshimura and N. Oshiman,: Development of a numerical simulator by FEM using edge-element for electromagnetic induction in a 3-D sphere, IAGA-IASPEI 2001 ABSTRACTS, pp.85-86,2001.
- R. Yoshimura and N. Oshiman,: Global-scale electromagnetic induction: 3-D test computations and the response of a realistic structure, IUGG 2003 Abstracts, B190, 2003.
- Yoshimura, R., Y. Honkura, N. Oshiman, T. Kasaya, E. Tolak, M. K. Tuncer, S. Baris, C. Celik and A. M. Isikara, A preliminary report on wideband MT survey in the western part of the North Anatolian fault zone -- Gemlik - Yalova Region --, 108th SGPSS Fall Meeting, 2000.
- Yoshimura, R. and N. Oshiman, A numerical simulator for electromagnetic induction in a 3-D sphere by Finite Element Method using Edge-Element, Japan Earth and Planetary Science Joint Meeting 2001, 2001.
- Yoshimura, R. and N. Oshiman, Geoelectromagnetic induction in a 3-D sphere: azimuthally symmetric and asymmetric test computations, Japan Earth and Planetary Science Joint Meeting 2002, 2002.
- Yasuhiro Umeda, Manabu Hashimoto, Kensuke Onoue, Kunihiko Shigetomi, The decrease in the well water preceding the Nankai earthquake, IUGG 2003, Sapporo, JSS01, 2003.
- Yasuhiro Umeda, Misako Hirata, Koji Yoshii, Shiro Ohmi, Takuo Shibutani and Kiyoshi Ito, The preliminary rupture of the 2000 western Tottori earthquake, European Seismological Commission(ESC) 2002, Genova, Italy, 2002
- Yasuhiro Umeda, Kazuo Matsumura, Takuo Shibutani, Shiro Ohmi, Hiroshi Katao, Kunihiko Watanabe, Kiyoshi Ito, Naoto Pshiman, Manabu Hashimoto and Tomokazu Iwata, The 2000 Tottori-ken seibu Japan, Earthquake -- rupture process and environmental field-, IASPEI, 2001, S1, Hanoi, Vietnam, 2001
- Kajuro Nakamura, Ony K. Suganda, Mohamad Gamal, Tedy Y. Pusidiono, Widhie I. Sani, Mipi A. Kusuma and Hasanuddin Z. Abidin: Gravity Survey Around Guntur Volcano (2000, IAVCEI)
- Masao Komazawa, Hitoshi Morikawa, Kajuro Nakamura, Junpei Akamatsu, Keiichi Nishimura, Sumio Sawada Ayfer Erken, Akin Onalp: Bedrock structure in Adapazari, Turkey a possible cause of severe damage by the 1999 Kociaeli earthquake, *Soil Dynamics and Earthquake Engineering* 22 (2002, SDEE)
- Komazawa, M., K. Nakamura, K. Nishimura, J. Akamatsu, R. Shichi and A., Yamamoto: 3D Gravity Basement Structure Associated with Active Faults in the Middle Part of Kinki District, West Japan (2003, IUGG)
- Itaba Satoshi, Kunihiko Watanabe and Ryohei Nishida, Quantitative evaluation of inland seismic activity in Japan by using GIS, IUGG 2003
- Katao, H., Lower-crustal reflector beneath the Tamba Plateau, Central Japan, JSA07/11A/D-018, IUGG 2003, in Sapporo.

**(G2) Non-refred papers**  
(papers in Japanese, 28)

**(H) Data acquisition and collection reports**  
(1 paper)

(papers in Japanese, 1)

Research Group for Deep Structure of Nagamachi-Rifu Fault,  
2002, Seismicreflection survey in Nagamachi-Rifu Fault, Sendai,  
Northeastern Japan, Tohoku Geophysical J., 36, 311-356.

## 6. 2. 8. Sakurajima Volcano Research Center

(books in Japanese, 3)

### (A1) Complete refereed papers (10 papers) (papers in Japanese, 1)

- Iguchi, M., Saito, E., Nishi, Y. and Tameguri, T.: Evaluation of recent activity at Satsuma-Iwojima - Felt earthquake on June 8, 1996 -, *Earth Planets Space*, pp.187-195, 2002.
- Kanda, W., Uyeshima, M., Makris, J., Orihara, Y., Hase, H., Nagao, T., Uyeda, S.: Electric field polarization around Ioannina VAN station, Greece, inferred from a resistivity mapping.: *Physics of Earth and Planetary Interior*, Vol.119, pp.269-283, 2000.
- Kanda, W. and Mori, S.: Self-potential anomaly of Satsuma-Iwojima Volcano.: *Earth, Planets and Space*, Vol.54, pp.231-237, 2002.
- Koike, K., Omura, M., Iguchi, M., Matsunaga, N., Tomiyama N. and RESTEC: Detection of Distribution of the 1998 Pyroclastic Flows, *Asian Journal of Geoinformatics*, pp.9-17, 2002.
- Mogi, T., Tanaka, Y., Widarto, D. S., Arsadi, E. M., Puspito, N. T., Nagao, T., Kanda, W., Uyeda, S.: Geoelectric potential difference monitoring in southern Sumatra, Indonesia -Co-seismic change-, *Earth, Planets and Space*, Vol.52, pp.245-252, 2000.
- Nishi, K.: A three-dimensional robust seismic ray tracer for volcanic regions, *Earth Planets Space*, pp.101-109, 2001.
- Tameguri, T., Iguchi, M. and Ishihara, K.: Reexamination of moment tensors for initial motion of explosion earthquakes using borehole seismograms at Sakurajima volcano, Japan, *Earth Planets Space*, pp.63-68, 2001.
- Voight, B., Young K.D., Hidayat, D., Subandrio, Purbawinata, M.A., Ratdompurbo, A., Suharna, Panut, Sayudi, D.S., Lahusen, R., Marso, J., Murray, T.L., Dejean, M., Iguchi, M., Ishihara, K.: Deformation and seismic precursors to dome-collapse and fountain-collapse nuees ardents at Merapi volcano, Java, Indonesia, 1994-1998, *Jour. Volc. Geotherm. Res.*, pp.261-287, 2000.
- Yamamoto, K., Ishihara, K., Okubo, S., Akito Araya: Accurate evaluation of ocean tide loading effects for gravity in nearshore region: the FG5 measurements at Sakurajima volcano in Kagoshima Bay, Japan, *Geophysical Research Letters*, pp.1807-1810, 2001.
- Tameguri, T., Iguchi, M. and Ishihara, K., Mechanism of explosive eruptions from source mechanism analyses of explosion earthquakes at Sakurajima Volcano, *Japan Bull. Volcanol. Soc. Japan*, 47, 197-215, 2002.

### (B) Research reviews (reviews in Japanese, 2)

### (C) Books

### (D) Research papers in bulletins and reports (1 paper) (papers in Japanese, 12)

- Kriswati, E. and Iguchi, M (2003) Inflation of the Aira Caldera prior to the 1999 Eruptive Activity at Sakurajima Volcano Detected by GPS Network in South Kyushu, *Ann. Disast. Prev. Res. Inst., Kyoto Univ.*, No.46B, 817-826.

### (E) Textbooks for lectures (2 papers) (papers in Japanese, 4)

- Iguchi, M., Hazard map (1), *Volcanology and Sabo Engineering course of JICA*, 2002.
- Iguchi, M., Hazard map (1), *Volcanology and Sabo Engineering course of JICA*, 2003.

### (G1) Papers presented at research meetings (19 papers) (papers in Japanese, 14)

- Kanda, W. and Mori, S.: Self-potential anomalies on volcanoes in southwestern part of Japan, *Abstracts of IAVCEI General Assembly 2000*, 2000
- Suantika, G., Iguchi, M.: Sismic crisis in 1997 and 1999 at Guntur volcano, West Java, Indonesia, *Abstracts of IAVCEI General Assembly 2000*, p.31, 2000.
- Tameguri, T., Iguchi, M., Ishihara, K: Long-period Rayleigh waves of explosion earthquakes related with generation of air-shocks at Sakurajima volcano, Japan, *Abstracts of IAVCEI General Assembly 2000*, p.38, 2000.
- Voight, B., Hidayat, Young, K. Iguchi, M., . Ishihara, K. et al.: Precursors to pyroclastic flows at Merapi volcano, Java, 1994-1998, *Abstracts of IAVCEI General Assembly 2000*, p.48, 2000.
- Kristianto, Iguchi, M., Ishihara, K., Suantika, G.: Infrasonic monitoring for Strombolian eruption at Anak Krakatau volcano, Sunda strait in Indonesia, *Abstracts of IAVCEI General Assembly 2000*, p.59, 2000.
- Ishihara, K.: Characteristics of volcanic ground deformation associated with volcano seismic events, *Abstracts of IAVCEI General Assembly 2000*, p.59, 2000.
- Hendrasto, M., Suantika, G., Karim, A., Iguchi, M: Inflation associated with seismic increase at Guntur volcano, West Java, Indonesia, *Abstracts of IAVCEI General Assembly 2000*, p.60, 2000.
- Takeshi Tameguri, Masato Iguchi, and Kazuhiro Ishihara: The source of long-period largest motion of explosion earthquakes at Sakurajima volcano, Japan, 2000 *Western Pacific Geophysics Meeting*, pp.224-225, 2000.
- Yamamoto, K., Suzuki, T., Ito, S., Ishihara, K., Nishi, K, Anomalous P wave attenuation region beneath the active crater of

- Sakurajima Volcano, Japan, Abstracts of IUGG 2003, V12/01P/D-003, 2003.
- Kanda, W., Tanaka, Y., Utsugi, M., Fujii, I., Hashimoto, T., Volcanomagnetic variation observed at Kuchierabujima Volcano, IUGG 2003 Abstracts Week A, A.26, 2003.
- Kanda, W., Mori, S., Self-potential surveys and monitoring on Satsuma-Iwojima Volcano, IUGG 2003 Abstracts Week A, A.278, 2003
- Nishimura, T., Iguchi M., JVSD Group, Database of volcanic earthquakes and tremor observed in Japan (1)– For prompt and efficient use for understanding active volcanoes -, ,IUGG 2003 Abstracts Week A, A.543, 2003.
- Iguchi M., Nishimura, T., JVSD Group, Database of volcanic earthquakes and tremor observed in Japan (2) –An example of utilization for vulcanian type eruption–, IUGG 2003 Abstracts Week A, A.546, 2003.
- Iguchi, M., Kriswati, E., Detection of magma supply to Sakurajimavolcano by using GPS in south Kyushu, Japan, IUGG 2003 Abstracts Week A, A.552, 2003.
- Ishihara, K., Empirical prediction model for volcanic eruption at Sakurajima, Japan, IUGG 2003 Abstracts Week A, A.159, 2003.
- Hidayati, S., Ishihara, K., Ratdomopurbo, A., Iguchi, M.,: Focal mechanism of volcano-tectonic earthquakes at Merapi volcano, Indonesia, IUGG 2003 Abstracts Week A, A.215, 2003.
- Tameguri, T., Iguchi, M., Ishihara, K., Mechanism of volcanic eruptions from source mechanisms analysis of explosion earthquakes at Sakurajima volcano, IUGG 2003 Abstracts Week A, A.218, 2003.
- Tameguri, T., Iguchi, M., Vertical multiple source model for dilatational motion of explosion earthquake at Sakurajima volcano, IUGG 2003 Abstracts Week A, A.214, 2003.
- Kosaka, R., Koyaguchi, T., Iguchi, M., Inaoka, H., Time series analysis of volcanic earthquakes at Satsuma-Iwojima island, IUGG 2003 Abstracts Week A, A.550, 2003.

## **(G2) Non-refreed papers**

(papers in Japanese, 23)

## 6.2.9 Water Resources Research Center

### (A1) Complete refreed papers (12 papers)

(papers in Japanese, 40)

- Toshiharu Kojiri and Kunio Tomosugi: Pattern classification of hyetographs and its application into flood control planning, *Stochastic Hydraulics 2000*, IAHR, pp.579-586, 2000.
- Shie-Yui Liong, Wee-Han Lim, Toshiharu Kojiri and Tomoharu Hori: Advance flood forecasting for flood stricken Bangladesh with a fuzzy reasoning method, *HYDROLOGICAL PROCESS*, Vol.14, pp.431-448, 2000.
- Takemon, Y: The reproductive behaviour and morphology of *Paraleptophlebia spinosa* (Ephemeroptera: Leptophlebiidae): implications for a variation in copula duration, *Limnology*, 1, pp.47-56, 2000.
- Takahashi, T., Y. Kawamura, N. Sakata, G. E. Elmesiry, Y. Takemon, K. Tanida, S. Minoshima, N. Shimizu, M. Kato, Nucleotide sequence of BamHI family satellite DNA and its unit length polymorphism in bluegill sunfish *Lepomis macrochirus*, *Molecular Biology Reports*, 28, pp.119-122, 2001.
- Nakakita, E., Y. Suzuki, and S. Ikebuchi: Hierarchical time-scale structure in the dependence of rainfall distribution on topography, *Journal of Hydrosience and Hydraulic Engineering*, Vol.19, No.2, pp.1-10, 2001.
- Soichiro Sugimoto, Eiichi Nakakita, and Shuichi Ikebuchi: A stochastic approach to short-term rainfall prediction using a physically based conceptual rainfall model, *Journal of Hydrology*, Vol.242, pp.137-155, 2001.
- Kuzuha, Y., K. Tomosugi, K.Kishii and M.Hayano: A Study on Temporal and spatial Distributions of Low Precipitation by Depth-Area-Duration Analyses, *Journal of Hydrosience and Hydraulic Engineering*, 20, pp.27-40, 2002.
- Oishi, S., M.Matsui and S. Ikebuchi: Development of the prediction model for acid rain and snow considering the detailed cloud microphysical processes, *Journal of Hydrosience and Hydraulic Engineering*, 20(2), pp.1-10, 2002.
- Kamada, M., Y. Takemon, H. Woo: Ecological engineering for conserving and restoring ecosystem of rivers and watersheds in East Asia-Pacific Region, *Ecology and Civil Engineering*, Vol.6, pp.59-60, 2003.
- Hamaguchi, T.: A new composite approach of physical and geostastical aspects to groundwater modeling, *Proc. of Weather Radar Information and Distributed Hydrological Modelling*, IAHS Publication no.282, pp.152-158, 2003.
- Ozaki, N., T. Fukushima, H. Harasawa, T. Kojiri, K. Kawashima, M. Ono: Statistical analysis on the effects of air temperature fluctuations on river qualities, *Hydrol. Process*, 17, pp.2837-2853, 2003.
- Chaves, P., T. Kojiri, Y. Yamashiki: Optimization of storage reservoir considering water quantity and quality, *Hydrol.*

*Process*, 17, pp.2769-2793, 2003.

### (A2) Refreed papers (25 papers)

(papers in Japanese, 5)

- Ishii, M., T. Oka, K. Otoshi: Investigation of Saline Water Intrusion into Aquifer by Using Resistivity Method, *Proc. of International Symposium 2000 on Groundwater*, IAHR, pp.235-240, 2000.
- Oka, T., M. Kadoya, H. Higashi: Changes in Rainfall Runoff Characteristics Caused by Urbanization, *Proc. of 12th Congress of the APD-IAHR*, pp.917-926, 2000.
- Oka, T., M. Ishii, M. Iguchi, S. M. U. Ahmed: Estimation of Rainfall Intensity Using GMS Images and Artificial Neural Networks and Runoff Analysis in Bangladesh, *Proc. of 12th Congress of the APD-IAHR*, pp.1073-1082, 2000.
- Kojiri, T.: Application of Advanced Technologies into Water Resources Systems, *Proc. of International Conference on Civil Engineering*, Vol.I (Invited Keynote Papers), pp.178-191, 2001.
- Higashi, H., T. Oka: Measurment and Modeling of Evapotranspiration during Plant Growth, *Proc. of the 13th Congress of the APD-IAHR*, pp.499-504, 2002.
- Oka, T., M. Iguchi, S.M.U. Ahmed, S.K. Bala: Numerical Simulation of Flood Lake Behavior in Northeastern Bangladesh, *Proc. of the 13th Congress of the APD-IAHR*, pp.528-533, 2002.
- M.N. Islam, T. Terao, T. Hayashi, J. Matsumoto and T. Oka: Estimation of monsoon rain and the use of BMD radar data, *The 3rd international symposium on Asia monsoon system*, pp.298-303, 2002.
- Ikebuchi, S.: Basin-wide Water Management and Hydroinformatics, *Proc. of Intl. Seminar on the Water Management in Basins and the Role of Reservoirs*, pp.9-27, 2002.
- Ikebuchi, S.: Basin-wide Water management and Hydroinformatics, *Proc. of International Seminar on the Water Management in Basins and the Role of Reservoirs*, pp.9-27, 2002.
- Kojiri, T., Y. Kinai, J-H. Park: Integrated River Basin Environment Assessment On Water Quantity And Quality By Considering Utilization Processes, *Proc. of Intl Conf. of Water Resources and Environment Research*, Vol.I, Dreseden, pp.396-401, 2002.
- Chaves, P., T. Kojiri: Storage Reservoir Planning Considering Water Quantity and Quality, *Proc. of the 13th IAHR-APD Congress*, Vol.II, Singapore, pp.1042-1047, 2002.
- Hamaguchi, T.: Geostatistical Improvemnet of Imperfectly Fitting between Modeled Groundwater Flow and Its Real Behavior: T.Hamaguchi, *Proc. of the 1st Int. Conf. on Hydrology and Water Resources in Asia Pacific Region*, Vol.2, pp.909-914, 2003.
- Kojiri, T., Tokai, A. and Yoshikawa, H.: Basin-wide environmental quality assessment based on distributed runoff

model, XXX IAHR Congress, Theme B, pp.231-238, 2003.

Smith, P.J., T. Kojiri: Short-term rainfall-runoff prediction with weather radar and Monte Carlo simulation, XXX IAHR Congress, Theme D, pp.183-189, 2003.

Kojiri, T., T. Teramura: Integrated river basin environment assessment and planning through hybrid simulation processes, XI IWRA World Water Congress, 2003.

### **(A3) Abstract refereed papers (23 papers)**

- Tanaka, K., S. Ikebuchi, M. Shiiba: Application of Kalman Filter to SiB for Soil Moisture Assimilation by Satellite Data, 2000 Western Pacific Geophysics Meeting, pp.WP35, H21A-05, 2000.
- Tanaka, K., K. Tsuboki, M. Shiiba, S. Ikebuchi: Numerical simulation of JSM-SiBUC initialized and externally forced by GAME reanalysis data, Proc. of International GAME/HUBEX Workshop Sapporo 2000, pp.39-41, 2000.
- Kojiri, T., S. Hanatani, T. Takasao, H. Goda: Decision Support System of Storage Reservoir Installed with Knowledge Acquisition Process, Advances in Hydro-Science and Engineering, Vol. IV (CD-ROM), 2000.
- Tanaka, K., H. Hayashi, E. Nakakita, S. Ikebuchi: Energy and Water Budget of Paddy Field in the Lake Biwa Basin, Japan, Proc. of the International Workshop on GAME-AAN/Radiation, pp.55-58, 2001.
- Kozan, O., K. Tanaka, S. Ikebuchi: Estimation of Energy and Water Budget in the Huaihe River Basin, China, Proc. of the International Workshop on GAME-AAN/ Radiation, pp.32-35, 2001.
- Tanaka, K., O. Kozan, T. Nakamura, M. Shiiba, S. Ikebuchi: Land Data Assimilation in the GAME-HUBEX, Proc. of the Fifth Intl. Study Conference on GEWEX in Asia and GAME, pp.697-702, 2001.
- Oishi, S., N. Ohgita, E. Nakakita, S. Ikebuchi: Effect of water vapor on advection of convective rainfall cells, Proc. of Fifth International Symposium on Hydrological Applications of Weather Radar -Radar Hydrology-, pp.171-176, 2001.
- Suzuki, Y., E. Nakakita, and S. Ikebuchi: Study on the dependence properties of rainfall distributions on topography in mountainous regions, Proc. of Fifth International Symposium on Hydrological Applications of Weather Radar -Radar Hydrology-, pp.215-220, 2001.
- Kitano, M., M. Itoh, E. Nakakita, A. Yamaji, T. Fujii, S. Ikebuchi: Online System of Short-term Rainfall Prediction and Evaluation of Prediction Accuracy, Proc. of Fifth International Symposium on Hydrological Applications of Weather Radar - Radar Hydrology-, pp.287-292, 2001.
- Kataoka, K., H. Daitou, K. Kamisaka, S. Ikebuchi, E. Nakakita, S. Oishi, A. Fujita, N. Takada: Study on Orographic Precipitation Characteristics and Short-Term Prediction Using Radar Data in Mountainous Region, Proc. of Fifth International Symposium on Hydrological, Applications of Weather Radar -Radar Hydrology-, pp.305-310, 2001.
- Nakakita, E., T. Yagami, S. Ikebuchi: Analysis of Characteristics of Generation and Propagation of Localized Heavy Rainfall utilizing Dynamic Indices for Short-Term Rainfall Prediction, Proc. of Fifth International Symposium on Hydrological Applications of Weather Radar -Radar Hydrology-, pp.341-346, 2001.
- Tanaka, K., K.Tsuboki, M.Shiiba, S.Ikebuchi: The impact of landuse change on the meso-scale precipitation system: Numerical study by JSM-SiBUC, Proc. of the 3rd GAME-HUBEX Workshop on Meso-scale Systems in Meiyu/Baiu Front and Its Hydrological Cycle, pp.167-170, 2001.
- Kozan, O., K.Tanaka, S.Ikebuchi: Improvement of diurnal variation of downward short-wave radiation by GMS-5 data, Proc. of the 3rd GAME-HUBEX Workshop on Meso-scale Systems in Meiyu/Baiu Front and Its Hydrological Cycle, pp.115-118, 2001.
- Kojiri, T., S. Sasaki, K. Ito, T. Hori: Flood Management in Urban River Basins, Proc. of the World Water and Environmental Resources Congress (CD-ROM), 2001.
- Seung-Hwan, SA, Y. Hosoi, Y. Kido: Study of Runoff Characteristics from Sub-watershed in Lake KOYAMAIKE, Proc. of 5th Intl. Conf. of Diffuse/ Nonpoint Pollution and Watershed Management (CD-ROM), Session 2, pp.1-6, 2001.
- Tamura, N., T. Kojiri, K. Tomosugi: Water quantity and turbidity simulation with distributed runoff model in the Yellow River basin, Flood Defence 2002, Vol.II, pp. 1699-1705, 2002.
- Kojiri, T., S. Hanatani: Knowledge-based decision support system for reservoir operation with knowledge acquisition process on flood prediction and risk accuracy, Flood Defence 2002, Vol.II, pp.1430-1437, 2002.
- Kuzuha, Y., K. Tomosugi, T. Kishii: Evaluation of Floods and Droughts by Statistical and Scale-related Analyses, Proc. of the First International Workshop on Climate Change and Water-related Disasters, Research and Development Bureau, Ministry of ECSST, pp.27-28, 2002.
- Nohara, D., T. Kojiri and K. Tomosugi: A Study on Decision Support System for Continuous Reservoir Operation with Artificial Intelligence, Proc. Of the 1st International Conference on Hydrology and Water Resources in Asia Pacific Region, Vol.1, Kyoto, pp.121-126, 2003.
- Higashi, H., T. Oka, Y. Kido: Consumption of Water and Nutrient during Plant Growth in a Weighing Lysimeter, Proceedings of the 1st International Conference on Hydrology and Water Resources in Asia Pacific Region, Vol. 2, pp.750-755, 2003.
- Kozan O., K. Tanaka, S. Ikebuchi: The Estimation of Water and Heat Budget in the Huaihe River Basin China - Detail Representation of Various Cropland and Irrigation -, Proc. of the 1st International Conference on Hydrology and Water Resources in Asia Pacific Region, Vol.2, pp.763-768, 2003.
- Oka, T., S.M.U. Ahmed, S.K. Bala, M. Iguchi: Flash Flood and



Inundation Process in the Monu River Basin Caused by Heavy Rainfall on June 6, 2001, Proc. of the 1st International Conference on Hydrology and Water Resources in Asia Pacific Region, Vol.2, pp.839-844, 2003.

Smith, P.J., T. Kojiri: Monte carlo simulation of distributed rainfall-runoff conditions for probabilistic short-term forecasting, GIS & RS in Hydrology, Water Resources and Environment, Vol.1, 2003.

**(B) Research reviews (1 review)**  
(reviews in Japanese, 10)

Taro Oka: Flood in Urban Area and its Measures, Journal of Municipal Problems, Vol.53, No.3, 2001

**(C) Books**  
(books in Japanese, 12)

**(D) Research papers in bulletins and reports (3 papers)**  
(papers in Japanese, 51)

Seung-Hwan, S., Y. Kido, Y. Hosoi, T. Masuda: Pollutant runoff characteristics from small watershed in Lake Basin, Research Report of WRRC, Kyoto University, No.22, pp.33-38, 2002.

Smith, P.J., T. Kojiri: Probabilistic Short-term Distributed Flood Forecasting, Annuals of DPRI, Kyoto Univ., Vol. 46 B, pp.885-897, 2003.

Chaves, P., T. Kojiri: Multi-objective Storage Reservoir

Operation under Uncertainty, Annuals of DPRI, Kyoto Univ., Vol.46 B, pp.899-918, 2003.

**(E) Textbooks for lectures**  
(textbooks in Japanese, 7)

**(F) Articles in newspapers and magazines**  
(papers in Japanese, 6)

**(G1) Papers presented at research meetings**  
(4 papers)  
(papers in Japanese, 95)

Hanatani, S., T. Kojiri, P. Smith: Decision Support System for Reservoir Operation with Knowledge Acquisition Process considering Accuracy of Flood Prediction, Proc. of 2001 Annual conference, Japan society Hydrology and water resources, pp.24-25, 2001.

Smith, P.J., T. Kojiri: Probabilistic Modeling of Distributed Rainfall and Flood Runoff Conditions, Proceedings of 2003 Annual Conference, Japan Society of Hydrology and Water Resources, pp.10-11, 2003.

Smith, P. J., T. Kojiri: Probabilistic Short-term Distributed Flood Forecasting, Annuals of Disas, Prev. Res. Inst., Kyoto Univ., No.46 B, pp.885-897, 2003.

Chaves, P., T. Kojiri: Multi-objective Storage Reservoir Operation under Uncertainty, Annuals of Disas, Prev. Res. Inst., Kyoto Univ., No.46 B, pp.899-918, 2003.

## 6. 2. 10 Research Center for Disaster Reduction Systems

### (A1) Complete refereed papers (15 papers) (papers in Japanese, 6)

- Kawata, Y.: Appropriate standards for regional disaster prevention in Asia Civil Engineering, JSCE, Vol.38, pp.10-17, 2000.
- Yoshiaki Kawata and Akihiro Kimura: Theoretical Study on Beach Profile Evolution Including Swash Zone, Reprinted From Coastal Engineering 2000, pp.2536-2546, 2000.
- NOBUAKI KOIKE, YOSHIAKI KAWATA and FUMIHIKO IMAMURA: Far-Field Tsunami Potential and a Real-Time Forecast System for the Pacific Using the Inversion Method, Natural Hazards 29, 2003, pp 423-436
- Sigeo Tatsuki and Haruo Hayashi: Family System Adjustment and Adaptive Reconstruction of Social Reality among the 1995 Earthquake Survivors, International Journal of Japanese Sociology No.9, pp.81-110, 2000.
- Tanaka, T., Fujita, T. and Yamaguchi, J.: Investigation into Rise Time of Buoyant Fire Plume Fronts, International Journal on Engineering Performance-Based Fire, Code, Vol.2, No.1, pp14-25, 2000.
- Himoto, K. and Tanaka, T.: A Physically Based Model for Urban Fire Spread, Fire Safety Science, Proc. of the 7th Int'l Symposium, pp129-140, 2002
- Watanabe, J., Shimomura, S., Aoyama, Y. and Tanaka, T.: A Formula for Prediction of Ceiling Jet Temperature in Two Layer Environment, Fire Safety Science, Proc. of the 6th Int'l Symposium, pp431-442, 2002
- Kujime, M., Matsushita, T. and Tanaka, T.: Influence of Doorway Opening Conditions on Vestibule Pressurization Smoke Control in Office Buildings, Fire Safety Science, Proc. of the 7th Int'l Symposium, pp741-752, 2002
- Suzuki, K., Harada, K. and Tanaka, T.: A Multi-Layer Zone Model for Predicting Fire Behavior in a Single Room, Fire Safety Science, Proc. of the 7th Int'l Symposium, pp851-862, 2002
- Nakao, M. and Tanaka, T.: Study on the Estimation of the hazard to Evacuation Due to Wind-blown Fire Flow Induced by Urban Fire, Fire Safety Science, Proc. of the 7th Int'l Symposium, pp6790690, 2002
- Minoura, K., F. Imamura, U. Kuran, T. Nakamura, G. A. Papadopoulos, T. Takahashi and A. C. Yalciner: Discovery of Minoan tsunami deposits, Geology, pp.59-62, 2000.
- Matsutomi, H., N. Shuto, F. Imamura and T. Takahashi: Field Survey of the 1996 Irian Jaya Earthquake Tsunami in Biak Island, Tsunamis in the Western Pacific, pp.199-212, 2001.
- Matsutomi, H., Y. Kawata, N. Shuto, Y. Tsuji, K. Fujima, F. Imamura, M. Matsuyama, T. Takahashi, N. Maki and S. S. Han: Flow Strength on Land and Damage of the 1998 Papua New Guinea Tsunami, Tsunami Research at the End of a Critical Decade, Advances in Natural and Technological Hazards Research, pp.179-195, 2001.

Hironori Kawakata and Mitsuhiro Shimada: Theoretical Approach to Dependence of Crack Growth Mechanism on Confining Pressure, Earth Planets Space, Vol.52, pp.315-320, 2000.

Hironori KAWAKATA, Akio CHO, Takashi YANAGIDANI, and Mitsuhiro SHIMADA: Gross Structure of a Fault during its Formation Process in Westerly Granite, Tectonophysics, Vol.323, pp.61-76, 2000.

### (A2) Refreed papers (9 papers) (papers in Japanese, 24)

- Kawata, Y.: Acceptable risk and loss reduction of natural disasters in the Asian region, Proceedings of the 2nd Civil engineering Conference in The Asian Region, ACECC, pp.195-205, 2001.
- Haruo Hayashi, Satoshi Tanaka, Kazunori Urabe, Haruhide Yoshida, Satoshi Inoue, Hideki Shima, Nobuhisa Deki, Jun Kasagi, Takahiro Nishino and Masasuke Takashima: Digital City for Disaster Reduction-Development of Pictogram System for Disaster Management, Digital Cities, pp.236-245, 2000.
- LU HENGJIAN, MASAYUKI KOHIYAMA, KEI HORIE, NORIO MAKI, HARUO HAYASHI, SATOSHI TANAKA: Building Damage and Casualties after an Earthquake-Relationship between Building Damage Pattern and Casualty Determined Using Housing Damage Photographs in the 1995 Hanshin-Awaji Earthquake Disaster-, Natural Hazards 29, 2003, pp 387-403
- MASAYUKI KOHIYAMA, NORIHIKO YAMASHITA, TADANOBU SATO, LU HENGJIAN, NORIO MAKI, SATOSHI TANAKA, HARUO HAYASHI: Expansion of the Nishinomiya Buils Environment Database-Simulation of seismic ground motion distribution and correlation with damage in the 1995 Hyogo-ken Nanbu Earthquake, Natural Hazards 29, 2003, pp 501-522
- H. Hayashi, S. Hashitera, M. Kohiyama, M. Matsuoka, N. Maki, H. Fujita and Christopher D. Elvidge: International Collaboration for the Early Damaged Area Estimation System Using DMSP/OLS Nighttime Images, Proc. of IEEE 2000 International Geoscience and Remote Sensing Symposium, Vol. 6, pp.2697-2699, 2000.
- M. Takashima, H. Hayashi, H. Kimura, M. Kohiyama, H. W. Kroehl, C. D. Elvidge and V. R. Hobson: Earthquake Damaged Area Estimation Using DMSP/OLS Night-time Imagery: Application for Hanshin-Awaji Earthquake, Proc. of IEEE 2000 International Geoscience and Remote Sensing Symposium, Vol.1, pp.336-338, 2000.
- M. Kohiyama, S. Hashitera, M. Matsuoka, N. Maki, H. Hayashi, H. Fujita and C. D. Elvidge: Estimation Method of Earthquake-Damaged Areas based on DMSP/OLS Nighttime Image, IEEE 2000 International Geoscience and Remote Sensing Symposium (poster session), 2000.
- M. Kohiyama, H. Hayashi, N. Maki and S. Hashitera: Validity

Study of EDES Application to Taiwan Chi-Chi Earthquake Disaster, Proceedings of the 21st Asian Conference on Remote Sensing Vol.1, pp.407-412, 2000.

Takahashi, T., Shuto, N., Imamura, F. and Asai, D.: Modeling Sediment Transport due to Tsunamis with Exchange Rate between Bed Load and Suspended Load Layers, Proceedings of the International Conference on Coastal Engineering, pp.1508-1519, 2000.

### **(A3) Abstract refereed papers (2 papers)**

Tanaka, T. and Ohmiya, Y.: A Trial for Risk Based Fire Safety Standards of Buildings, PSAM5 -Vol.3/4, Universal Academy Press, Inc., pp.1743-1750, 2000.

Akamatsu, J., H.Morikawa, K.Nishimura, K. Onoue, M. Nakamura, N. Seto, M. Komazawa, L. Jiang, K. Li and Q. Luo: Subsurface structure of Lijiang basin, Yunnan, China as related to damage distribution caused by the M7.0 Lijiang Earthquake of February 3, 1996, Proc. 12th World Conf. on Earthquake Engineering, Pap No.322/4/A(CD-ROM), 2000.

### **(B) Research reviews**

(reviews in Japanese, 4)

### **(C) Books**

(books in Japanese, 12)

### **(D) Research papers in bulletins and reports (1 paper)**

(papers in Japanese, 2)

Morikawa, H., Sawada, S., Akamatsu, J., and Toki, K.: A method to estimate phase velocities using microseisms simultaneously observed at two sites, Research Reports on Earthquake Engineering, No.78, Earthquake Engineering Research Group, Tokyo Institute of Technology, pp.1-16, 2001.

### **(E) Textbooks for lectures**

(textbooks in Japanese, 1)

### **(G1) Papers presented at research meetings (13 papers)**

(papers in Japanese, 12)

M. Kohiyama, S. Hashitera, N. Maki, M. Matsuoka, and H. Hayashi: Estimation of Damaged Areas in Earthquake Disasters in Turkey and Taiwan, 1999, 1st Japan/US Workshop on DMSP Application for Disaster Management, 2000.

M. Takashima, H. Hayashi: Field Verification of Early Impacted Area Estimation Using DMSP/OLS Data in the 1999 Marmara Earthquake Disaster in Turkey, 1st Japan/US Workshop on DMSP Application for Disaster Management, 2000.

M. Kohiyama, H. Hayashi, N. Maki, S. Hashitera, and M. Matsuoka: Methodology and International Collaboration for Early Damaged Area Estimation System Using DMSP/OLS

Imagery, Workshop on Application of Remote Sensing Technologies to Earthquake Disaster Management, 2000.

M. Kohiyama, H. Hayashi, N. Maki, S. Hashitera, H. W. Kroehl, C. D. Elvidge and V. R. Hobson,: Development of Early Damaged Area Estimation System Using DMSP/OLS, First International Global Disaster Information Network Information Technology Exposition and Conference (poster session), 2000.

Hayashi, H: Development of Early Damaged Area Estimation System Using DMSP/OLS, General Perspective of DMSP Application for Disaster Management 1st Japan/US Workshop on DMSP Application for Disaster Management, 2000.

Kohiyama, M., Hashitera, S., Maki, N., Matsuoka, M., and Hayashi, H: Estimation of Damaged Areas in Earthquake Disasters in Turkey and Taiwan, 1st Japan/US Workshop on DMSP Application for Disaster Management, 2000.

Takashima, M. and Hayashi, H.: Field Verification of Early Impacted Area Estimation Using DMSP/OLS Data in the 1999 Marmara Earthquake Disaster in Turkey, 1st Japan/US Workshop on DMSP Application for Disaster Management, 2000.

Takashima, M. and Hayashi, H: Field Verification of the Earthquake Impacted Area Estimated on the Basis of DMSP Night-time Images, 8th International Symposium on Natural and Technological Hazards, 2000.

Hayashi, H., Takashima, M., Kimura, H., Hashitera, S., Kohiyama, M., and Maki, N: Use of DMSP-OLS Images for Early Impacted Area Identification Method, 8th International Symposium on Natural and Technological Hazards, 2000.

Kohiyama, M., Hayashi, H., Maki, N., Hashitera, S., and Matsuoka, M: Methodology and International Collaboration for Early Damaged Area Estimation System Using DMSP/OLS Imagery, Workshop on Application of Remote Sensing Technologies to Earthquake Disaster Management, 2000.

Kohiyama, M., Hayashi, H., Maki, N., Hashitera, S., Kroehl, H. W., Elvidge, C. D., and Hobson, V. R.: Development of Early Damaged Area Estimation System Using DMSP/OLS, First International Global Disaster Information Network Information Technology Exposition and Conference (poster session) , 2000.

Himoto, K. and Tanaka, T: Preliminary Model for Urban Fire Spread - Building Fire Behavior Under The Influence of External Heat and Wind, 15th Meeting of the UJNR Panel on Fire Research and Safety, NSTIR 6588, Vol.2, pp.309-319, 2000.

Tanaka, T: Necessity of Design Methodology in the Framework of a Performance-based Fire Safety Design System, 15th Meeting of the UJNR Panel on Fire Research and Safety, NSTIR 6588, Vol.1, pp.435-440, 2000.

### **(G2) Non-refereed papers**

(papers in Japanese, 21)

## 6.2.11 Research Centre on Landslides

(Research Centre on Landslides was established in April 2003. List of papers is included in 6.2.3

Division of GeoDisaster)

## Patent

Keiichiro Suita, Ichiro Takeuchi, Masayoshi Nakashima: Beam-to-Column Connection, Connection methods and structures by mechanical joints, Applied for a patent on May 8, 2002.

Hiroshi Fukuoka, owner: Kansai TLO: Surveying Tripod, To set RTK-GPS antenna in short time and keep precisely during survey by servo-control system of the two legs. Applied for a patent on February 5, 2000.

## Development of Software and Database

Hajime Mase and Tomotsuka Takayama: EBED Version 1.00, Prediction of multi-directional random wave transformations, 2000

Hajime Nakagawa (Partially Collaboration): Collected Hydraulic Formulie -Collection of Computer Source Programs-, Hydraulic Committee, JSCE, Mar., 2002, CD-ROM Version (in Japanese)

Kiyoshi Nishi: Fermat, metod of three-dimensional ray-tracing in volcanic regions (available on the web-site) , 2001

Kyoji Sassa and Fawu Wang: Landslide movement simulation

system, Simulation of landslide movement, 2002.

Toshiharu Kojiri: Hydro-BEAM (Hydrological river Basin Environment Assessment Model) ,

Susumu Iai: FLIP(Finite element analysis of Liquefaction analysis Program) , A computer program of effective stress analysis of soil-structure systems on liquefiable soils, 1997.

## Computer and Network Management

Hajime Nakagawa: Japan Society for Natural Disaster Science , Maintenance, Management, and Update of the Society's Home Page , 1996-2001

Hajime Nakagawa: Natural Disaster Research Council of DPRI, Kyoto University, Maintenance, Management, and Update of the Council's Home Page, 2001-

Hajime Nakagawa: Disaster Prevention Research Forum, Maintenance, Management, and Update of the Forum's Home Page, 2003-

Shigeru Kato, Member of Public Relations Subcommittee, Committee on Coastal Engineering, Japan Society of Civil Engineers, 2002-present.

Ohmi Shiro: Committee of Computer Network of ResearchCenter for Earthquake Prediction, maintenance and improvement. , 2000.4.-2002.3.

Ohmi Shiro: Construction, maintenance and improvement of the telemetered observation system for microearthquakes.

Taro Oka: Academic information service committee (member & chief) of Ujicampus and DPRI, Construction and management of Local Area Network, since 2000 to present

Kenji Tanaka: Node Administrator, Management of the Node

(ERu-8-1) in Uji new building, since 2000 to present

Kenji Tanaka: Maintenance of Homepage, Administrator of the web site of APHW(Asia Pacific Association of Hydrology and Water Resources), since 2002 to present

Kenji Tanaka: Superuser, Administrator of Workstations, PCs and LAN of Water Resources Research Center (Ikebuchi and Kojiri lab), since 2000 to present

Toshio Hamaguchi: Superuser, Administrator of Workstations, PCs and LAN of Water Resources Research Center (Oka lab), since 2000 to present

Toshio Hamaguchi: Node Administrator, Management of the Node (SRu-6) in Uji main building, since 2000 to present

Toshio Hamaguchi: Superuser, Administrator of Workstation and LAN of the Japan Geotechnical Society Kansai Branch, since 2000 to present

Hiroshi Fukuoka: Chairperson of the homepage committee to create and manage the formal web page of the Japan Landslide Society, To create contents and obtain domain, 1998 - 2000.

Hiroshi Fukuoka: member of the management committee formal web page of the Japanese Society of Erosion Control Engineering, To manage web contents and give advice.

Hiroshi Fukuoka; Management of TCP/IP address for Landslide

Section, administrator (super-user) of workstations "landslide", "l-news", "ringhost". To manage TCP/IP addresses, user accounts, e-mail environment, as well as web pages of Landslide Section, Environmental Geoscience Group of Earth and Planetary Science of Division of the Graduate School of Science of Kyoto University, Landslide News, UNESCO-International Union of Geological Science Joint Programme

"International Geological Correlation Programme" No.425 (Cultural Heritage and Landslide Hazard Assessment), and Landslide Research Council of Japan, 1994 - present.  
Kazuo Okunishi: administrator, , 1996-2001.  
Kazuo Okunishi: administrator, , 1998-2002.

## Editorial Positions with International Journals

Sumio SAWADA: Natural Disaster Science, Sub-editor, 2001.  
Keiichi TODA: Journal of Hydrosience and Hydraulic Engineering, JSCE, editor, 2000-2001.  
Hajime Mase: Reviewer, Journal of Waterway, Port, Coastal, and Ocean Engineering, ASCE, 2000.  
Hajime Mase: Reviewer, Journal of Waterway, Port, Coastal, and Ocean Engineering, ASCE, 2001.  
Hiromitsu Kawai: Wind and Structures, International Editorial Board, 2000-2001.  
Takao Yamashita: Coastal engineering Journal (World Scientific), editorial board, 2000-2001.  
Takuo Shibutani: J. Natural Disaster, editorial board, 2001.  
Takuo Shibutani: Geophys. J. Int., reviewer, 2000.  
Masato Iguchi: Earth Planets Space, guest editor, 2001.  
Masahiro Chigira: Engineering Geology, Editor, 1998-present.  
Kyoji Sassa: International Newsletter "Landslide News," Chairman of Landslide News Publishing Committee of the Japan Landslide Society, 1986 - 2003.  
Kyoji Sassa: Landslides - Journal of the International Consortium on Landslides, Editor-in-Chief, 2003-present.  
Hiroshi Fukuoka: International Newsletter "Landslide News," member of the Landslide News Publishing Committee of the Japan Landslide Society, 1994-2003, and member of the Editorial Committee (1997-2003) and Secretariat General

(1997-2003).  
Hiroshi Fukuoka: Landslides - Journal of the International Consortium on Landslides, member of the Editorial Panel and Secretariat, 2003-present.  
R.C. Sidle: Journal of Forest Research, Associate Editor (Charter), 1996-present.  
Susumu Iai: International Journal for Numerical and Analytical Methods in Geomechanics, Advisory Board, 2002-present.  
Susumu Iai: International Journal of Physical modeling in Geotechnics, Editorial Committee, 2003-present.  
Peiliang Xu: Earth Planets Space, Guest Editor, 2000.  
Peiliang Xu: Journal of Geodesy, Editor, 1999-present.  
Peiliang Xu: President of The Intercommission Committee on Theory, The International Association of Geodesy, 2003-  
Kaoru Takara: Journal of Hydroinformatics, Advisory Board,, 1999-present  
Kaoru Takara: International Journal of River Basin Management, Advisory Board, 2003- present  
Kaoru Takara: Landslide-Journal of the International Consortium on Landslides, Editorial Board, 2003- present

## Prizes and Awards of Societies and Associations

Masayoshi Nakashima: American Society of Civil Engineers (ASCE), The Moisseiff Award, May 2000.  
Masayoshi Nakashima: Japanese Society of Steel Construction (JSSC), Best Paper Award, June 2000.  
Keiichiro Suita: American Society of Civil Engineers (ASCE), The Moisseiff Award, May 2000.  
Kaoru Takara: Japan Society of Civil Engineers(JSCE), Best Paper Award, 2001.  
Taro Oka: The Outstanding Paper Prize of Asia Pacific Division, IAHR, 2002.

Masashi Kamon: Japan Geotechnical Society, Project Planning Promotion Award, 2000  
Kyoji Sassa: GeoEng2000, Distinguished Speaker Award, 2000  
Peiliang Xu: The International Association of Geodesy, The Best Paper Award, 2000.  
Peiliang Xu: Geodetic Society of Japan, The Tsuboi Prize, 2002.