

## 寺院建築物における伝統木造軸組の 構造力学特性のモデル化による骨組解析

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### 要 旨

本研究では、寺院建築物における伝統木造軸組をモデルとした立体架構試験体を製作し、振動台実験及び静的水平力載荷実験を実施して、伝統木造軸組構法が持つ柱-横架材接合部の曲げモーメント抵抗性能や柱傾斜復元力特性を実験的に把握した。実験結果に基づいて、横架材の曲げモーメント抵抗や柱傾斜復元力特性などの非線形復元力モデルを構築し、地震応答解析を行って、本モデル化手法ならびに本解析手法の妥当性を検証した。

**キーワード:** 伝統木造軸組, 柱傾斜復元力特性, 柱-横架材接合部, 曲げモーメント抵抗, 地震応答解析

### Frame Analysis Based on Modeling of Structural Characteristics in Traditional Wooden Frames like Temples

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### Synopsis

This paper deals with frame analysis based on modeling of structural characteristics from full-scale shaking table tests and static lateral loading tests in traditional wooden frames. From experiments, the equilibrium relationship between the total restoring force and the sum of the bending moment acting on the column is established. Modeling method by averaging of bending moment resistance at all the column-beam joints and restoring force due to column rocking by using bending moment resistance at the top and bottom of column is also determined. Results of frame analysis based on these models quite agree with the results of shaking table tests under large deformation.

**Keywords:** Traditional wooden frame, Restoring force due to column rocking, Column-beam joint, Bending moment resistance, Seismic response analysis