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Seismic Design and Ductility Evaluation of Concrete Filled Thin-Walled Steel Tubular Columns

Guest Editor:

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Message from the Guest Editor

The seismic design and ductility evaluation of concrete-filled thin-walled steel tubular (CFT) columns are crucial in ensuring the structural integrity and resilience of buildings and infrastructure under seismic loading. Steel provides strength and stiffness, while concrete enhances the ductility and confinement of the steel tube, preventing local buckling and enhancing ductility. This interaction enhances the overall strength and ductility of the column, allowing it to resist seismic forces more effectively. This Special Issue may consider optimizing the cross-sectional shape and dimensions of the CFT column to achieve the desired strength, stiffness, and ductility. Consideration of the seismic design may include factors such as the concrete strength, cover thickness, and reinforcement detailing. The seismic design must account for buckling effects and the interaction of local/global instability modes to ensure that the steel tube has sufficient thickness and cross-sectional properties to withstand the axial and bending loads induced by seismic forces.

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Message from the Editor-in-Chief

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