



fire



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Structures in Fire: Focus on Steel and Composite Structures

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Message from the Guest Editors

Structural fire design has emerged as a promising alternative to traditional prescriptive fire-resistant designs. Applications include the design of tall buildings, signature structures, bridges, industrial structures, etc., where the use of fire protection materials can be optimized for economy and sustainability while achieving thermal and structural performance goals, leading to life safety and collapse prevention.

This Special Issue will focus on highlighting innovative research methods being used to investigate the fundamental and specific behaviors of steel and steel-concrete composite members, components, and systems subjected to realistic fire scenarios. Both experimental and computational research highlighting innovative testing methods, numerical modeling approaches, and computational techniques will be emphasized. The validation of numerical models and approaches using experimental results and parametric studies conducted using validated models will also be a focus. It will also highlight papers that present the fundamental behavior, failure modes, and limit states of steel and composite structures exposed to realistic and/or standard fire scenarios.



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Special issue