

Special Issue

Fire Safety Engineering and Risk Analysis: Structural Thermo-Mechanical Response and Wildland–Urban Interface Fire Risk

Message from the Guest Editors

Fire safety engineering and risk analysis are increasingly critical as hazards grow more complex in built and natural environments. This Special Issue, "Fire Safety Engineering and Risk Analysis: Structural Thermo-Mechanical Response and Wildland–Urban Interface Fire Risk," seeks high-quality research on structural fire engineering and WUI fire risk analysis. Topics of interest include:

Structural Thermo-Mechanical Response: Material, component, and system behavior under fire; performance-based engineering; failure mechanisms and post-fire performance.

Data-Driven Structural Fire Analysis: Machine learning, surrogate modeling, reliability analysis, and uncertainty quantification.

WUI Fires and Risk Analysis: Fire spread, ember transport, and vegetation–structure interactions; probabilistic risk assessment and resilience-based mitigation.

We welcome contributions advancing computational modeling, experimental methods, data-driven approaches, and risk-informed decision-making to support fire safety and resilience.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Fire is an international open-access journal about the science, policy, and technology of fires and how they interact with communities and the environment. *Fire* seeks to provide a forum to help the fire science community convey how we can live with fire in a changing world. *Fire* seeks submissions from interdisciplinary studies that take a pyrogeography perspective of fires occurring in natural, cultural, and industrial landscapes and how they interact with communities in the science-policy interface. *Fire's* Editorial Board are widely recognized international leaders. The journal emphasizes quality and innovation and has a rigorous peer-review process. I strongly recommend *Fire* for the rapid publication of your innovative research publications and case studies.

Editor-in-Chief

Dr. Grant Williamson

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