Special Issue

Tunnel Fire Behavior: Dynamics, Smoke Management, and Safety Strategies

Message from the Guest Editors

Tunnel fire safety has been a critical topic due to the fast development of tunnel transportation all over the world. The spatial semi-confined structure of tunnels leads to distinctive characteristics during fires, such as rapid smoke propagation and difficulties in evacuation and rescue, which can result in severe casualties and structural damage. Especially, in recent years, various forms of complex tunnel systems, including underwater tunnels and urban underground interchanges, have continuously emerged. The increasingly complex structural conditions have diversified smoke propagation behaviors and further complicated smoke control efforts. Additionally, the rapid growth in the number of new energy vehicles in tunnels has introduced new challenges for fire prevention and control, placing higher demands on traditional safety management and emergency strategies.

This Special Issue aims to present experimental, theoretical, and numerical studies regarding tunnel fire behavior, smoke management, and safety strategies to address the new challenges in the field of tunnel fires.

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

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