Special Issue

Modeling, Experiment and Simulation of Tunnel Fire

Message from the Guest Editors

Recently, more and more tunnels with novel forms have emerged. As for the modeling of tunnel fire, with the development of AI, data-driven models should be taken into consideration. Combining data-driven and physical-driven models to express complex fire behavior in tunnels with novel forms is welcomed.

This SI aims to present new fire challenges brought by tunnels with new forms and explore the unique fire dynamics in these tunnels by combining experiments and simulations. Topics include, but are not limited to, the following:

- Ventilation and evacuation in extremely long tunnels.
- Fire location determination and fire separation in utility tunnels.
- Ventilation, smoke control, and flow organization in underwater tunnels.
- Ventilation, smoke control, and flow organization in interconnecting tunnels.
- Fire dynamics of new energy in tunnels.
- Flowing fire in tunnels.
- Tunnel fire risk analysis or management using AI.
- Fire accident in electric-related underground engineering.

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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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