# **Special Issue**

## **Pool Fire Behavior in Wind**

### Message from the Guest Editors

A pool fire is defined as a diffusion flame established on top of a horizontal fuel surface. According to statistics, it is one of the most frequent accidents that occurs in industrial production and the transportation of hazardous materials. Pool fire disasters mostly occur in open space, and environmental wind commonly plays a role. Pool fire behavior is then driven by the coupling of buoyancy and wind. In addition to changing the flame geometry by tilting it, wind can also affect the heat feedback mechanisms, as well as the interaction between fuel-air in mixed-buoyancy and boundary-layer diffusion combustion.

This Special Issue aims to provide selected contributions regarding the flame geometry, heat transfer mechanisms, and gas flow characteristics of pool fires in wind. Potential topics include, but are not limited to:

The flame geometry of pool fires and the wind heat transfer mechanisms of pool fires:

The heat feedback of pool fires in wind:

The gas flow characteristics of pool fire behavior in wind; The gas temperatures of pool fire behavior in wind; The mixture fraction of pool fire behavior in wind.

#### **Guest Editors**

Dr. Bo Li

Dr. Kaihua Lu

Dr. Tiantian Tan

### Deadline for manuscript submissions

closed (30 September 2025)



## **Fire**

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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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