Special Issue

Developments of Modelling, Diagnostics, and AI-Aided Techniques in Combustion and Fire Science

Message from the Guest Editors

Fire is an unexpected and uncontrolled combustion process, and due to its wide-scale variations and the involvement of various combustible materials, it is unique in many aspects. For example, in the realm of fire modelling, the simplicity, efficiency and easy implementation of the models gain more attention, so most fire models incorporate many empirical parameters. This Special Issue thus focuses on the differences and connections between fundamental combustion and fire science, aiming to provide new perspectives on modeling, diagnostics and data-driven techniques, which is expected to better promote the development of robust research methods for fire science. We cordially invite the researchers and experts in the fields, including, but not limited to, wildfire, leakage fire and hydrogen combustion, to contribute to this Special Issue, which will provide an excellent platform to exchange invaluable insights and gain extended knowledge on fire dynamics and its connections to fundamental combustion

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Deadline for manuscript submissions

31 October 2025

Fire

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 3.1

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