

Special Issue

Integrated Wildfire Management: From Fire Behaviour Science to Operational Response

Message from the Guest Editors

Wildfires are growing more destructive due to climate change, fuel accumulation and WUI expansion. Recent extreme events across Mediterranean Europe, the Americas and Australia highlight the urgent need to integrate fire behaviour science with operational decision-making. While progress has been made in wildfire dynamics, fire–atmosphere interactions and risk assessment, a critical gap remains between research and operational implementation. Strengthening the science–policy–practitioner interface is essential to improve preparedness, response and resilience. Topics include, but are not limited to, the following:

- Wildfire behaviour and extreme fire dynamics
- Fire–atmosphere interactions
- Operational fire spread prediction and modelling
- Decision-support systems
- Fire suppression strategies and tactics
- Prescribed burning and fuel management
- Wildland–urban interface fires
- Remote sensing and real-time wildfire monitoring
- Firefighter safety and human factors
- Artificial intelligence and machine learning applications
- Risk assessment
- Post-fire analysis
- Wildfire policy and governance

Guest Editors

Prof. Dr. André Rodrigues

Department of Civil Protection, Faculty of Natural Sciences, Engineering and Technologies, Lusófona University, Porto Campus, Rua Augusto Rosa, 24, 4000-098 Porto, Portugal

Prof. Dr. Jorge Rafael Nogueira Raposo

Department of Civil Protection, Faculty of Natural Sciences, Engineering and Technologies, Lusófona University, Porto Campus, Rua Augusto Rosa, 24, 4000-098 Porto, Portugal

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Fire
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
fire@mdpi.com

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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
School of Biological Sciences, University of Tasmania, Private Bag 55,
Hobart, TAS 7001, Australia

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