



*fire*



an Open Access Journal by MDPI

## Probabilistic Risk Assessments in Fire Protection Engineering

Guest Editors:

**Prof. Dr. Hans Pasman**

Chemical Engineering  
Department, Texas A&M  
University, College Station, TX,  
USA

**Dr. Qingsheng Wang**

Department of Chemical  
Engineering, Texas A&M  
University, College Station, TX  
77843-3122, USA

Deadline for manuscript  
submissions:

**31 May 2024**

### Message from the Guest Editors

Dear Colleagues,

We are pleased to invite you to contribute your research relating to a challenging topic in engineering. For this Special Issue one can think of the following topics and other:

- Databases that enable extraction of probability values
- Quantitative simulation of fire propagation (Bayesian and Petri network)
- Quantitative evaluation of risk reduction measures:
  - to reduce the chance of fire initiation
  - to limit fire propagation
    - materials choice
    - structural measures
    - layout - both process plant and urban planning
    - enhancing early detection
  - to reduce so-called domino effect
- Enhancing the probability of effectively fighting fire.
- Improving the probability not to be suffocated/poisoned by smoke
- Improving the probability not to be injured by radiant heat
- Probability of successful evacuation from fire situation
- Cost-effectiveness considerations based on fire risk assessment
- Ranking measure options and decision making



[mdpi.com/si/145382](https://mdpi.com/si/145382)

**Special Issue**