

## A brief history of fire models in structural engineering



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**Abstract:** In the last century, many fire models have been proposed to investigate structural response to fire. Over the course of time, fire models have evolved from simply using the highest gas temperatures inside the compartment to more sophisticated computational fluid dynamics (CFD) models, where hyper-realistic time-varying structural surface temperatures can be determined for a range of realistic fire scenarios. As our understanding of fire dynamics embedded with the compartment fire increase, new fire models have been proposed. Advancement in computer technology also paved a way of increasing use of field models (CFD based) for structural analysis. Despite the evolution of fire models, due to new architectural and innovative designs of buildings that lead to different fire scenarios, the evolution of fire models for structural analysis will never stop.

### SFPE Webinar (CPD Event)

Date: 14 January 2021 (Thursday)

Time: 6:30 - 7:30 PM (HK)

9:30 - 10:30 PM (AEDT)

10:30 – 11:30 AM (GMT)

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