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Titolo	Tunnel Fire Dynamics // by Haukur Ingason, Ying Zhen Li, Anders Lönnermark
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ISBN	1-4939-2199-1
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (509 p.)
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Soggetti	Civil engineering Security systems Mechanics, Applied Solids Civil Engineering Security Science and Technology Solid Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Fuel and ventilation controlled fires -- Tunnel fire tests -- Heat release rates in tunnels -- Fire growth rates in tunnels -- Design fire curves -- Combustion products from fires -- Gas temperatures -- Flame length -- Heat flux and thermal resistance -- Fire spread -- Smoke stratification -- Tunnel fire ventilation -- Visibility -- Tenability -- Fire suppression and detection in tunnels -- CFD modeling of tunnel fires -- Scaling technique.
Sommario/riassunto	This book covers a wide range of issues in fire safety engineering in tunnels, describes the phenomena related to tunnel fire dynamics, presents state-of-the-art research, and gives detailed solutions to these major issues. Examples for calculations are provided. The aim is to significantly improve the understanding of fire safety engineering in tunnels. Chapters on fuel and ventilation control, combustion products,

gas temperatures, heat fluxes, smoke stratification, visibility, tenability, design fire curves, heat release, fire suppression and detection, CFD modeling, and scaling techniques all equip readers to create their own fire safety plans for tunnels. This book should be purchased by any engineer or public official with responsibility for tunnels. It would also be of interest to many fire protection engineers as an application of evolving technical principles of fire safety.
