1.	Record Nr.	UNINA9910298193003321
	Titolo	Handbook of Optimization in the Railway Industry / / edited by Ralf Borndörfer, Torsten Klug, Leonardo Lamorgese, Carlo Mannino, Markus Reuther, Thomas Schlechte
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
	ISBN	3-319-72153-4
	Edizione	[1st ed. 2018.]
	Descrizione fisica	1 online resource (280 pages)
	Collana	International Series in Operations Research & Management Science, , 0884-8289 ; ; 268
	Disciplina	385.0973
	Soggetti	Operations research
		Decision making
		Management science
		Transportation
		Operations Research/Decision Theory
		Operations Research, Management Science
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Chapter1: Simulation of Rail Operations -- Chapter2: Capacity Assessment in Railway Networks -- Chapter3: Aggregation methods for railway network design based on lifted Benders Cuts -- Chapter4: Freight Train Routing -- Chapter5: Robust Train Timetabling -- Chapter6: Modern Challenges in Timetabling -- Chapter7: Railway Track Allocation -- Chapter8: Use of Optimization Tools for Routing in Rail Freight Transport -- Chapter9: Optimization of Railway Freight Shunting -- Chapter10: Optimization of Rolling Stock Rotations -- Chapter11: Railway Crew Management -- Chapter12: Train Dispatching -- Chapter13: Delay Propagation and Delay Management in Transportation Networks.
	Sommario/riassunto	This book promotes the use of mathematical optimization and operations research methods in rail transportation. The editors assembled thirteen contributions from leading scholars to present a unified voice, standardize terminology, and assess the state-of-the-

art. There are three main clusters of articles, corresponding to the classical stages of the planning process: strategic, tactical, and operational. These three clusters are further subdivided into five parts which correspond to the main phases of the railway network planning process: network assessment, capacity planning, timetabling, resource planning, and operational planning. Individual chapters cover: Simulation Capacity Assessment Network Design Train Routing Robust Timetabling Event Scheduling Track Allocation Blocking Shunting Rolling Stock Crew Scheduling Dispatching Delay Propagation.