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Autore	Guerrieri Marco
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Descrizione fisica	1 online resource (270 pages)
Collana	Springer tracts in civil engineering
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Soggetti	Railroad engineering Railroads - Design and construction
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Train resistance and braking distance -- The alignment design of ordinary and high-speed railways -- The railway track -- Wheel-rail interaction and derailment analysis -- Introduction to railway track design -- Railway track deterioration and monitoring -- Basics of switches and crossings -- Railway lines and stations -- The railway bridges -- Railway tunnels -- Traffic management systems and railway capacity -- High-speed railways, maglev and hyperloop systems -- Metro rail systems -- Tramway systems -- People movers, monorails and rack railways.
Sommario/riassunto	This textbook examines key railway engineering topics useful for railway design and control. Conventional railways are considered together with high-speed railways, tramways, metros, maglev and hyperloop systems, people movers, monorails and rack railways. Every system of transport is described in its basic technical characteristics, especially in terms of transportation system capacity, alignment design criteria and construction costs. It is an introductory book to specific topics of the railway engineering field, and thus, the mathematical treatment is purposely brief and simplified. The book is an ideal learning resource for students of civil engineering, as well as a valuable reference for practicing engineers involved with railway designs.

