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Titolo	Dynamic Interaction of Train-Bridge Systems in High-Speed Railways : Theory and Applications / / by He Xia, Nan Zhang, Weiwei Guo
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ISBN	3-662-54871-2
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Descrizione fisica	1 online resource (XVI, 580 p. 358 illus., 357 illus. in color.)
Collana	Advances in High-speed Rail Technology, , 2363-5010
Disciplina	625.1
Soggetti	Vibration Dynamical systems Dynamics Light construction Steel construction Lightweight construction Transportation Vibration, Dynamical Systems, Control Light Construction, Steel Construction, Timber Construction
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction to coupling dynamics of train-bridge system -- Fundamentals of bridge response under moving loads -- Design codes for high-sped railway bridges in China -- Dynamic modeling of coupling train-bridge system -- Dynamic analysis of train-bridge system subjected to wind action -- Dynamic analysis of train-bridge system subjected to seismic action -- Dynamic analysis of train-bridge system subjected to collision loads -- Damage identification of bridge structure based on train/bridge responses.
Sommario/riassunto	This book presents both the fundamental theory and numerical calculations and field experiments used in a range of practical engineering projects. It not only provides theoretical formulations and various solutions, but also offers concrete methods to extend the life of existing bridge structures and presents a guide to the rational design of new bridges, such as high-speed railway bridges and long-span

bridges. Further, it offers a reference resource for solving vehicle–structure dynamic interaction problems in the research on and design of all types of highways, railways and other transport structures.