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Nota di contenuto	Introduction -- Overview of Technological Development of CWR Turnout on Bridge in China and Abroad -- Computational Models and Methods for CWR Turnout on Bridge -- Design Methodology of CWR Turnout on Bridge -- Research on Structural Design of Girder Turnout -- Dynamic Simulation Analysis of Turnout on Bridge -- Status Monitoring of CWR Turnout on Bridge -- Field Test for Mechanical Properties of CWR Turnout on Bridge -- Design Cases of CWR Turnout on Bridge.
Sommario/riassunto	This book systematically and comprehensively expounds the calculation theory, design method and engineering application of CWR turnout on bridges on high-speed railway. This book applies the concept of systems engineering and considers the vehicle-turnout-bridge as a coupled system. It combines static analysis, dynamic

simulation, laboratory tests, and field tests, integrating theoretical research with practical engineering applications. The book solves critical technical puzzles such as constitutive relationships in force transfer mechanisms and interactions between turnouts and bridges, optimal configurations of turnouts relative to bridges, and appropriate structural designs and parameters for turnout beams. It establishes the calculation theory and design method for welded turnouts on bridges, creating a complete technical framework that includes theoretical analysis, structural design, testing, monitoring, and technical standards, thereby ensuring the safe and stable operation of high-speed railway turnouts on bridges in China. Moreover, the book introduces innovative design concepts for controlling relative displacements between turnouts and bridges, proposes design methods for welded turnouts on high-speed railway bridges, conducts service status monitoring and dynamic performance testing, and validates a wealth of field data. It summarizes research findings and practical experiences in the field of welded turnout technology on high-speed railway bridges, serving as a valuable resource for industry professionals, college students, and postgraduates involved in high-speed railway track engineering.