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	Nota di contenuto	1 Introduction -- 2 Basics of mathematics -- 3 Kinematic performance analysis and optimization of parallel manipulators without actuation redundancy -- 4 Motion/Force transmission performance analysis and optimization of parallel manipulators with actuation redundancy -- 5 Motion/Force constraint performance analysis and optimization of overconstrained parallel manipulators with actuation redundancy -- 6 Elastostaic stiffness evaluation and optimization of parallel manipulators -- 7 Multi-objective optimization of parallel manipulators using game algorithm -- 8 Hybrid algorithm for multi-objective optimization design of parallel manipulators -- 9 Multi-objective optimization design and sensitivity analysis of parallel manipulators -- 10 Multi-objective optimization design of parallel manipulators based on the principal component analysis.
	Sommario/riassunto	This book investigates the performance analysis and optimization

design of parallel manipulators in detail. It discusses performance evaluation indices for workspace, kinematic, stiffness, and dynamic performance, single- and multi-objective optimization design methods, and ways to improve optimization design efficiency of parallel manipulators. This book collects the authors' research results previously scattered in many journals and conference proceedings and presents them in a unified form after the methodical edition. As a result, numerous performance analyses and optimization of parallel manipulators are presented, in which the readers in the robotics community may be greatly interested. More importantly, readers can use the methods and tools introduced in this book to carry out performance evaluation and optimization of parallel manipulators by themselves. The book can provide important reference and guideline for undergraduate and graduate students, engineers, and researchers who are interested in design and application of parallel manipulators.