1.	Record Nr.	UNINA9910254092003321
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	Titolo	Optimization by GRASP : Greedy Randomized Adaptive Search Procedures / / by Mauricio G.C. Resende, Celso C. Ribeiro
	Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2016
	ISBN	1-4939-6530-1
	Edizione	[1st ed. 2016.]
	Descrizione fisica	1 online resource (XX, 312 p. 173 illus., 117 illus. in color.)
	Disciplina	519.3
	Soggetti	Computer science - Mathematics
		Computer science—Mathematics
		Operations research
		Decision making
		Industrial engineering
		Production engineering
		Artificial intelligence
		Computational Mathematics and Numerical Analysis
		Discrete Mathematics in Computer Science
		Operations Research/Decision Theory
		Industrial and Production Engineering
		Artificial Intelligence
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Foreword -- Preface -- 1. Introduction -- 2. A short tour of combinatorial optimization and computational complexity -- 3. Solution construction and greedy algorithms -- 4. Local search -- 5. GRASP: The basic heuristic -- 6. Runtime distributions -- 7. GRASP: extended construction heuristics -- 8. Path-relinking -- 9. GRASP with Path-relinking -- 10. Parallel GRASP heuristics -- 11. GRASP for continuous optimization -- 12. Case studies -- References -- Index.
	Sommario/riassunto	This is the first book to cover GRASP (Greedy Randomized Adaptive Search Procedures), a metaheuristic that has enjoyed wide success in practice with a broad range of applications to real-world combinatorial optimization problems. The state-of-the-art coverage and carefully

crafted pedagogical style lends this book highly accessible as an introductory text not only to GRASP, but also to combinatorial optimization, greedy algorithms, local search, and path-relinking, as well as to heuristics and metaheuristics, in general. The focus is on algorithmic and computational aspects of applied optimization with GRASP with emphasis given to the end-user, providing sufficient information on the broad spectrum of advances in applied optimization with GRASP. For the more advanced reader, chapters on hybridization with path-relinking and parallel and continuous GRASP present these topics in a clear and concise fashion. Additionally, the book offers a very complete annotated bibliography of GRASP and combinatorial optimization. For the practitioner who needs to solve combinatorial optimization problems, the book provides a chapter with four case studies and implementable templates for all algorithms covered in the text. This book, with its excellent overview of GRASP, will appeal to researchers and practitioners of combinatorial optimization who have a need to find optimal or near optimal solutions to hard combinatorial optimization problems.