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Titolo	Algorithm Portfolios [[electronic resource]] : Advances, Applications, and Challenges // by Dimitris Souravlias, Konstantinos E. Parsopoulos, Ilias S. Kotsireas, Panos M. Pardalos
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Soggetti	Operations research Management science Algorithms Microprogramming Discrete mathematics Operations Research, Management Science Control Structures and Microprogramming Discrete Mathematics Algorismes Optimització matemàtica Llibres electrònics
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Metaheuristic optimization algorithms -- 2. Algorithm portfolios -- 3. Selection of constituent algorithms -- 4. Allocation of computation resources -- 5. Sequential and parallel models -- 6. Recent applications -- 7. Epilogue -- References.
Sommario/riassunto	This book covers algorithm portfolios, multi-method schemes that harness optimization algorithms into a joint framework to solve optimization problems. It is expected to be a primary reference point for researchers and doctoral students in relevant domains that seek a quick exposure to the field. The presentation focuses primarily on the applicability of the methods and the non-expert reader will find this

book useful for starting designing and implementing algorithm portfolios. The book familiarizes the reader with algorithm portfolios through current advances, applications, and open problems. Fundamental issues in building effective and efficient algorithm portfolios such as selection of constituent algorithms, allocation of computational resources, interaction between algorithms and parallelism vs. sequential implementations are discussed. Several new applications are analyzed and insights on the underlying algorithmic designs are provided. Future directions, new challenges, and open problems in the design of algorithm portfolios and applications are explored to further motivate research in this field.
