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Titolo	The GLOBAL Optimization Algorithm : Newly Updated with Java Implementation and Parallelization / / by Balázs Bánhelyi, Tibor Csendes, Balázs Lévai, László Pál, Dániel Zombori
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Soggetti	Calculus of variations
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	Mathematical analysis
	Analysis (Mathematics)
	Calculus of Variations and Optimal Control; Optimization
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Sommario/riassunto	This book explores the updated version of the GLOBAL algorithm which contains improvements for a local search algorithm and new Java implementations. Efficiency comparisons to earlier versions and on the increased speed achieved by the parallelization, are detailed. Examples are provided for students as well as researchers and practitioners in optimization, operations research, and mathematics to compose their own scripts with ease. A GLOBAL manual is presented in the appendix to assist new users with modules and test functions. GLOBAL is a successful stochastic multistart global optimization algorithm that has

passed several computational tests, and is efficient and reliable for small to medium dimensional global optimization problems. The algorithm uses clustering to ensure efficiency and is modular in regard to the two local search methods it starts with, but it can also easily apply other local techniques. The strength of this algorithm lies in its reliability and adaptive algorithm parameters. The GLOBAL algorithm is free to download also in the earlier Fortran, C, and MATLAB implementations.