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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- List of Figures -- List of Applications -- 1. Mathematical Modeling Using Algebraic Oriented Languages -- 2. Introduction to GAMS Technology -- 3. Nonlinear Optimization Applications in GAMS Technology -- References -- Subject Index -- Author Index.
Sommario/riassunto	Nonlinear Optimization Applications Using the GAMS Technology develops a wide spectrum of nonlinear optimization applications expressed in the GAMS (General Algebraic Modeling System) language. The book is highly self-contained and is designed to present applications in a general form that can be easily understood and quickly updated or modified to represent situations from the real world. The book emphasizes the local solutions of the large-scale, complex, continuous nonlinear optimization applications, and the abundant examples in GAMS are highlighted by those involving ODEs, PDEs, and optimal control. The collection of these examples will be useful for software developers and testers. Chapter one presents aspects concerning the mathematical modeling process in the context of mathematical modeling technologies based on algebraic-oriented modeling languages. The GAMS technology is introduced in Chapter 2, mainly as a system for formulating and solving a large variety of general optimization models. The bulk of the 82 nonlinear optimization applications is given in Chapter 3. This book is primarily intended to serve as a reference for graduate students and for scientists working in various disciplines of industry/mathematical programming that use

optimization methods to model and solve problems. It is also well suited as supplementary material for seminars in optimization, operations research, and decision making, to name a few.

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