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	Nota di contenuto	General Linear Methods for Ordinary Differential Equations; CONTENTS; Preface; 1 Differential Equations and Systems; 1.1 The initial value problem; 1.2 Examples of differential equations and systems; 1.3 Existence and uniqueness of solutions; 1.4 Continuous dependence on initial values and the right-hand side; 1.5 Derivatives with respect to parameters and initial values; 1.6 Stability theory; 1.7 Stiff differential equations and systems; 1.8 Examples of stiff differential equations and systems; 2 Introduction to General Linear Methods; 2.1 Representation of general linear methods
		2.2 Preconsistency, consistency, stage-consistency, and zero-stability2.3 Convergence; 2.4 Order and stage order conditions; 2.5 Local discretization error of methods of high stage order; 2.6 Linear stability theory of general linear methods; 2.7 Types of general linear methods; 2.8 Illustrative examples of general linear methods; 2.8.1 Type l: $p = r = s = 2$ and $q =$ lor 2; 2.8.2 Type 2: $p = r = s = 2$ and $q = 1$ or 2; 2.8.3 Type 3: $p = r = s = 2$ and $q = 1$ or 2; 2.8.4 Type 4:$p = r = s = 2$ and $q = 1$ or 2; 2.9 Algebraic stability of general linear methods;

2.10 Underlying one-step method

Sommario/riassunto	Learn to develop numerical methods for ordinary differential equations General Linear Methods for Ordinary Differential Equations fills a gap in the existing literature by presenting a comprehensive and up-to-date collection of recent advances and developments in the field. This book provides modern coverage of the theory, construction, and implementation of both classical and modern general linear methods for solving ordinary differential equations as they apply to a variety of related areas, including mathematics, applied science, and engineering. The author provides the theoretical foun