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Sommario/riassunto

This fourth in a suite of four practical guides is an engineer"s companion to using numerical methods for the solution of complex mathematical problems. It explains the theory behind current numerical methods and shows in a step-by-step fashion how to use them.The volume focuses on differential and differential-algebraic systems, providing numerous real-life industrial case studies to illustrate this complex topic. It describes the methods, innovative techniques and strategies that are all implemented in a freely available toolbox called BzzMath, which is developed and maintained by the autho