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Nota di contenuto	Studies on current challenges in stability issues for numerical differential equations / Luca Dieci, Nicola Guglielmi. Long-term stability of symmetric partitioned linear multistep methods / Paola Console and Ernst Hairer. Markov chain Monte Carlo and numerical differential equations / J.M. Sanz-Serna. Stability and computation of dynamic patterns in PDEs / Wolf-Jürgen Beyn, Denny Otten, and Jens Rottmann-Matthes. Continuous decompositions and coalescing eigenvalues for matrices depending on parameters / Luca Dieci ... [and 3 more]. Stability of linear problems: joint spectral radius of sets of matrices / Nicola Guglielmi and Marino Zennaro
Sommario/riassunto	This volume addresses some of the research areas in the general field of stability studies for differential equations, with emphasis on issues of concern for numerical studies. Topics considered include: (i) the long

time integration of Hamiltonian Ordinary DEs and highly oscillatory systems, (ii) connection between stochastic DEs and geometric integration using the Markov chain Monte Carlo method, (iii) computation of dynamic patterns in evolutionary partial DEs, (iv) decomposition of matrices depending on parameters and localization of singularities, and (v) uniform stability analysis for time dependent linear initial value problems of ODEs. The problems considered in this volume are of interest to people working on numerical as well as qualitative aspects of differential equations, and it will serve both as a reference and as an entry point into further research