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Autore	Gesztesy Fritz <1953->
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Sommario/riassunto	As a partner to Volume 1: Dimensional Continuous Models, this monograph provides a self-contained introduction to algebro-geometric solutions of completely integrable, nonlinear, partial differential-difference equations, also known as soliton equations. The systems studied in this volume include the Toda lattice hierarchy, the

Kac-van Moerbeke hierarchy, and the Ablowitz-Ladik hierarchy. An extensive treatment of the class of algebro-geometric solutions in the stationary as well as time-dependent contexts is provided. The theory presented includes trace formulas, algebro-geometric initial value problems, Baker-Akhiezer functions, and theta function representations of all relevant quantities involved. The book uses basic techniques from the theory of difference equations and spectral analysis, some elements of algebraic geometry and especially, the theory of compact Riemann surfaces. The presentation is constructive and rigorous, with ample background material provided in various appendices. Detailed notes for each chapter, together with an exhaustive bibliography, enhance understanding of the main results.