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	Sommario/riassunto	This book lays the algebraic foundations of a Galois theory of linear difference equations and shows its relationship to the analytic problem of finding meromorphic functions asymptotic to formal solutions of difference equations. Classically, this latter question was attacked by Birkhoff and Tritzinsky and the present work corrects and greatly generalizes their contributions. In addition results are presented concerning the inverse problem in Galois theory, effective computation of Galois groups, algebraic properties of sequences, phenomena in positive characteristics, and q-difference equations. The book is aimed at advanced graduate researchers and researchers.