1. Record Nr. UNISALENTO991003409299707536 Autore Loday-Richaud, Michèle Titolo Divergent Series, summability and resurgence II [e-book]: Simple and multiple summability / by Michèle Loday-Richaud **ISBN** 9783319290751 Descrizione fisica 1 online resource Collana Lecture Notes in Mathematics, 0075-8434; 2154 AMS 40-02 Classificazione Disciplina 515.24 Soggetti Difference equations **Functional equations Dynamics** Ergodic theory Differential equations Lingua di pubblicazione Inglese **Formato** Software Livello bibliografico Monografia Avant-propos: Preface to the three volumes: Introduction to this Nota di contenuto volume: 1 Asymptotic Expansions in the Complex Domain: 2 Sheaves and ech cohomology; 3 Linear Ordinary Differential Equations; 4 Irregularity and Gevrey Index Theorems; 5 Four Equivalent Approaches to k-Summability; 6 Tangent-to-Identity Diffeomorphisms; 7 Six Equivalent Approaches to Multisummability; Exercises; Solutions to Exercises; Index; Glossary of Notations; References Addressing the question how to "sum" a power series in one variable Sommario/riassunto when it diverges, that is, how to attach to it analytic functions, the volume gives answers by presenting and comparing the various theories of k-summability and multisummability. These theories apply in particular to all solutions of ordinary differential equations. The volume includes applications, examples and revisits, from a cohomological point of view, the group of tangent-to-identity germs of diffeomorphisms of C studied in volume 1. With a view to applying the theories to solutions of differential equations, a detailed survey of linear ordinary differential equations is provided which includes Gevrey

asymptotic expansions, Newton polygons, index theorems and Sibuya's proof of the meromorphic classification theorem that characterizes the

Stokes phenomenon for linear differential equations. This volume is the second of a series of three entitled Divergent Series, Summability and Resurgence. It is aimed at graduate students and researchers in mathematics and theoretical physics who are interested in divergent series, Although closely related to the other two volumes it can be read independently