

1. Record Nr.	UNISA996466642003316
Autore	Fraczek Markus Szymon
Titolo	Selberg Zeta Functions and Transfer Operators [[electronic resource] ] : An Experimental Approach to Singular Perturbations // by Markus Szymon Fraczek
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-51296-X
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XV, 354 p. 71 illus., 43 illus. in color.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 2139
Disciplina	515.56
Soggetti	Number theory Computer mathematics Approximation theory Functions of complex variables Special functions Dynamics Ergodic theory Number Theory Computational Mathematics and Numerical Analysis Approximations and Expansions Functions of a Complex Variable Special Functions Dynamical Systems and Ergodic Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	This book presents a method for evaluating Selberg zeta functions via transfer operators for the full modular group and its congruence subgroups with characters. Studying zeros of Selberg zeta functions for character deformations allows us to access the discrete spectra and resonances of hyperbolic Laplacians under both singular and non-singular perturbations. Areas in which the theory has not yet been sufficiently developed, such as the spectral theory of transfer operators

or the singular perturbation theory of hyperbolic Laplacians, will profit from the numerical experiments discussed in this book. Detailed descriptions of numerical approaches to the spectra and eigenfunctions of transfer operators and to computations of Selberg zeta functions will be of value to researchers active in analysis, while those researchers focusing more on numerical aspects will benefit from discussions of the analytic theory, in particular those concerning the transfer operator method and the spectral theory of hyperbolic spaces.

---