1. Record Nr. UNINA9910300249103321

Titolo	Analytic number theory : in honor of Helmut Maier's 60th birthday / / edited by Carl Pomerance, Michael Th. Rassias
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-22240-6
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (378 p.)
Disciplina	510
Soggetti	Number theory Numerical analysis Data structures (Computer science) Number Theory Numerical Analysis Data Structures and Information Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	CM-Points on Straight Lines -- Maass Waveforms and Low-Lying Zeros -- Théorème de Jordan Friable -- On Conjectures of T. Ordowski and Z. W. Sun Concerning Primes and Quadratic Forms -- Large Gaps Between Consecutive Prime Numbers Containing Perfect Powers -- On the Parity of the Number of Small Divisors of n -- Counting Primes in Arithmetic Progressions -- Limit Points of the Sequence of Normalized Differences Between Consecutive Prime Numbers -- Spirals of the Zeta Function I -- Best Possible Densities of Dickson m-tuples, as a Consequence of Zhang-Maynard-Tao -- A Note on Helson's Conjecture on Moments of Random Multiplicative Functions -- Large Values of the Zeta-Function on the Critical Line -- A Note on Bessel Twists of L-Functions -- The Sound of Fractal Strings and the Riemann Hypothesis -- Sums of two Squares in Short Intervals -- Infinite Sumsets with Many Representations -- On the Ratio of Consecutive Gaps Between Primes -- Remarks on Fibers of the Sum-of-Divisors Function -- On Amicable Numbers -- Trigonometric Representations of Generalized Dedekind and Hardy Sums via the Discrete Fourier Transform -- On Arithmetic

Properties of Products and Shifted Products -- Narrow Progressions in the Primes.

Sommario/riassunto

This volume contains a collection of research and survey papers written by some of the most eminent mathematicians in the international community and is dedicated to Helmut Maier, whose own research has been groundbreaking and deeply influential to the field. Specific emphasis is given to topics regarding exponential and trigonometric sums and their behavior in short intervals, anatomy of integers and cyclotomic polynomials, small gaps in sequences of sifted prime numbers, oscillation theorems for primes in arithmetic progressions, inequalities related to the distribution of primes in short intervals, the Möbius function, Euler's totient function, the Riemann zeta function and the Riemann Hypothesis. Graduate students, research mathematicians, as well as computer scientists and engineers who are interested in pure and interdisciplinary research, will find this volume a useful resource. Contributors to this volume: Bill Allombert, Levent Alpoge, Nadine Amersi, Yuri Bilu, Régis de la Bretèche, Christian Elsholtz, John B. Friedlander, Kevin Ford, Daniel A. Goldston, Steven M. Gonek, Andrew Granville, Adam J. Harper, Glyn Harman, D. R. Heath-Brown, Aleksandar Ivi, Geoffrey Iyer, Jerzy Kaczorowski, Daniel M. Kane, Sergei Konyagin, Dimitris Koukoulopoulos, Michel L. Lapidus, Oleg Lazarev, Andrew H. Ledoan, Robert J. Lemke Oliver, Florian Luca, James Maynard, Steven J. Miller, Hugh L. Montgomery, Melvyn B. Nathanson, Ashkan Nikeghbali, Alberto Perelli, Amalia Pizarro-Madariaga, János Pintz, Paul Pollack, Carl Pomerance, Michael Th. Rassias, Maksym Radziwi, Joël Rivat, András Sárközy, Jeffrey Shallit, Terence Tao, Gérald Tenenbaum, László Tóth, Tamar Ziegler, Liyang Zhang.