Record Nr. UNINA9910963550903321 The best writing on mathematics 2012 / / Mircea Pitici, editor; **Titolo** foreword by David Mumford Pubbl/distr/stampa Princeton,: Princeton University Press, 2013 **ISBN** 9781283656788 1283656787 9781400844678 1400844673 Edizione [Course Book] Descrizione fisica 1 online resource (321 p.) The Best Writing on Mathematics;; 3 Collana Altri autori (Persone) PiticiMircea MumfordDavid <1937-> Disciplina 510 Soggetti Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Front matter -- Contents -- Foreword: The Synergy of Pure and Applied Mathematics, of the Abstract and the Concrete / Mumford. David -- Introduction / Pitici, Mircea -- Why Math Works / Livio, Mario -- Is Mathematics Discovered or Invented? / Gowers, Timothy -- The Unplanned Impact of Mathematics / Rowlett, Peter -- An Adventure in the Nth Dimension / Hayes, Brian -- Structure and Randomness in the Prime Numbers / Tao, Terence -- The Strangest Numbers in String Theory / Baez, John C. / Huerta, John -- Mathematics Meets Photography: The Viewable Sphere / Swart, David / Torrence, Bruce --Dancing Mathematics and the Mathematics of Dance / Belcastro, Sarah-Marie / Schaffer, Karl -- Can One Hear the Sound of a Theorem? / Schneiderman, Rob -- Flat-Unfoldability and Woven Origami Tessellations / Lang, Robert J. -- A Continuous Path from High School Calculus to University Analysis / Gowers, Timothy -- Mathematics Teachers' Subtle, Complex Disciplinary Knowledge / Davis, Brent --

How to Be a Good Teacher Is an Undecidable Problem / Flapan, Eririca -- How Your Philosophy of Mathematics Impacts Your Teaching / Gold, Bonnie -- Variables in Mathematics Education / Epp, Susanna S. -- Bottom Line on Mathematics Education / Mumford, David / Garfunkel,

Sol -- History of Mathematics and History of Science Reunited? / Gray, Jeremy -- Augustus De Morgan behind the Scenes / Simmons, Charlotte -- Routing Problems: A Historical Perspective / Bruno, Giuseppe / Genovese, Andrea / Improta, Gennaro -- The Cycloid and Jean Bernoulli / Alexanderson, Gerald L. -- Was Cantor Surprised? / Gouvêa, Fernando Q. -- Why Is There Philosophy of Mathematics at All? / Hacking, Ian -- Ultimate Logic: To Infinity and Beyond / Elwes, Richard -- Mating, Dating, and Mathematics: It's All in the Game / Colyvan, Mark -- Contributors -- Notable Texts -- Acknowledgments -- Credits

Sommario/riassunto

This annual anthology brings together the year's finest mathematics writing from around the world. Featuring promising new voices alongside some of the foremost names in the field, The Best Writing on Mathematics 2012 makes available to a wide audience many articles not easily found anywhere else--and you don't need to be a mathematician to enjoy them. These writings offer surprising insights into the nature, meaning, and practice of mathematics today. They delve into the history, philosophy, teaching, and everyday occurrences of math, and take readers behind the scenes of today's hottest mathematical debates. Here Robert Lang explains mathematical aspects of origami foldings: Terence Tao discusses the frequency and distribution of the prime numbers; Timothy Gowers and Mario Livio ponder whether mathematics is invented or discovered; Brian Haves describes what is special about a ball in five dimensions; Mark Colyvan glosses on the mathematics of dating; and much, much more. In addition to presenting the year's most memorable writings on mathematics, this must-have anthology includes a foreword by esteemed mathematician David Mumford and an introduction by the editor Mircea Pitici. This book belongs on the shelf of anyone interested in where math has taken us--and where it is headed.