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| Autore | Martin Carla D |
| Titolo | Keeping it R.E.A.L [[electronic resource]] : research experiences for all learners // Carla D. Martin, Anthony Tongen |
| Pubbl/distr/stampa | Washington, D.C., : Mathematical Association of America, 2011 |
| ISBN | 0-88385-961-0 |
| Descrizione fisica | 1 online resource (0 p.) |
| Collana | Classroom resource materials |
| Altri autori (Persone) | TongenAnthony |
| Disciplina | 510.71 |
| Soggetti | Critical thinking Mathematics - Research Mathematics Mathematics - Study and teaching (Higher) Computation laboratories Project method in teaching |
| 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 and index. |
| Nota di contenuto | cover ; copyright page ; Untitled; Acknowledgments; Contents; Introduction and Motivation; Introduction; Motivation; Implementation; Grading; Organization; Computer Exploration of Mathematical Concepts; A Prime Project; A Golden Prime Project; A Rather Normal Project; Collatz Collapse; Fractions of Fractions; Diffusion by Chance; Random Investing; Infinite Digits with Finite Storage; Follow the Rules!; Chaotic Rabbits; Smoothing Out Tangles; Shortening Voices Everywhere; Student Poster Example; Numerical Algorithms; Bit by Bit; Getting to the Root of the Problem; Things that Periodically Fit Going with the FlowSupercaliFRACTAListic!; Chain Reactions; The World's Largest Linear Algebra Problem; Shifting the Way We Think About Linear Algebra; Facing Reality with Eigenfaces; Matrix Surgery: Operating on Matrices; Student Poster Example; Advanced Numerical Analysis; Matrices of Matrices; Wrapping Around Matrices; Getting Smaller; Improved Hearing; You Match I Match; Seeing More Clearly; Eigenvalue Computing Side-by-Side; Delayed Understanding; Student Poster Example; Bibliography; Index; About the Authors |
| Sommario/riassunto | A collection of computational classroom projects carefully designed to |

inspire critical thinking and mathematical inquiry. This book also contains background subject information for each project, grading rubrics, and directions for further research. Instructors can use these materials inside or outside the classroom to inspire creativity and encourage undergraduate research. R.E.A.L. projects are suitable for a wide-range of college students, from those with minimal computational exposure and precalculus background to upper-level students in a numerical analysis course. Each project is class tested, and most were presented as posters at regional conferences.--Page [4] of cover.
