Record Nr. UNINA9910784934003321 **Titolo** Theoretical foundations and numerical methods for sparse recovery [[electronic resource] /] / edited by Massimo Fornasier Pubbl/distr/stampa Berlin; New York, : De Gruyter, c2010 **ISBN** 1-282-72302-2 9786612723025 3-11-022615-4 Descrizione fisica 1 online resource (350 p.) Collana Radon series on computational and applied mathematics;; 9 SK 920 Classificazione Altri autori (Persone) FornasierMassimo Disciplina 512.9/434 Soggetti Sparse matrices Equations - Numerical solutions Differential equations, Partial - Numerical solutions 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 Frontmatter -- Table of Contents -- Compressive Sensing and Structured Random Matrices -- Numerical Methods for Sparse Recovery -- Sparse Recovery in Inverse Problems -- An Introduction to Total Variation for Image Analysis Sommario/riassunto The present collection is the very first contribution of this type in the field of sparse recovery. Compressed sensing is one of the important facets of the broader concept presented in the book, which by now has made connections with other branches such as mathematical imaging, inverse problems, numerical analysis and simulation. The book consists of four lecture notes of courses given at the Summer School on "Theoretical Foundations and Numerical Methods for Sparse Recovery" held at the Johann Radon Institute for Computational and Applied Mathematics in Linz, Austria, in September 2009. This unique collection will be of value for a broad community and may serve as a textbook for graduate courses. From the contents: "Compressive Sensing and Structured Random Matrices" by Holger Rauhut "Numerical Methods for Sparse Recovery" by Massimo Fornasier "Sparse Recovery in Inverse

Problems" by Ronny Ramlau and Gerd Teschke "An Introduction to Total Variation for Image Analysis" by Antonin Chambolle, Vicent Caselles,