1. Record Nr. UNINA9910437872603321 Autore **Burger Martin** Titolo Level Set and PDE Based Reconstruction Methods in Imaging: Cetraro, Italy 2008, Editors: Martin Burger, Stanley Osher / / by Martin Burger, Andrea C.G. Mennucci, Stanley Osher, Martin Rumpf Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2013 3-319-01712-8 **ISBN** Edizione [1st ed. 2013.] 1 online resource (VII, 319 p. 88 illus., 40 illus. in color.) Descrizione fisica Collana C.I.M.E. Foundation Subseries;; 2090 Disciplina 515.353 Soggetti Partial differential equations Computer mathematics Optical data processing Partial Differential Equations Computational Mathematics and Numerical Analysis Image Processing and Computer Vision Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di contenuto A Guide to the TV Zoo -- EM-TV methods for inverse problems with Poisson noise -- Variational Methods in Image Matching and Motion Extraction -- Metrics of Curves in Shape Optimization and Analysis. Sommario/riassunto This book takes readers on a tour through modern methods in image analysis and reconstruction based on level set and PDE techniques, the major focus being on morphological and geometric structures in images. The aspects covered include edge-sharpening image reconstruction and denoising, segmentation and shape analysis in images, and image matching. For each, the lecture notes provide insights into the basic analysis of modern variational and PDE-based

techniques, as well as computational aspects and applications.