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Nota di contenuto	Thermoacoustic Applications (Patch et al.) -- On the Transport Method for Hybrid Inverse Problems (Chung et al.) -- Stable Determination of an Inclusion in a Layered Medium with Special Anisotropy (Di Cristo) -- Convergence of stabilized P1 finite element scheme for time harmonic Maxwell's equations (Asadzadeh et al.) -- Regularized Linear Inversion with Randomized Singular Value Decomposition (Ito et al.) -- Parameter selection in dynamic contrast-enhanced magnetic resonance tomography (Niinimaki et al.) -- Convergence of explicit P1 finite-element solutions to Maxwell's equations (Beilina et al.) -- Reconstructing the Optical Parameters of a Layered Medium with

Optical Coherence Elastography (Elbau et al.) -- The finite element method and balancing principle for magnetic resonance imaging (Beilina et al.).

Sommario/riassunto

This proceedings volume gathers peer-reviewed, selected papers presented at the “Mathematical and Numerical Approaches for Multi-Wave Inverse Problems” conference at the Centre International de Rencontres Mathématiques (CIRM) in Marseille, France, in April 2019. It brings the latest research into new, reliable theoretical approaches and numerical techniques for solving nonlinear and inverse problems arising in multi-wave and hybrid systems. Multi-wave inverse problems have a wide range of applications in acoustics, electromagnetics, optics, medical imaging, and geophysics, to name but a few. In turn, it is well known that inverse problems are both nonlinear and ill-posed: two factors that pose major challenges for the development of new numerical methods for solving these problems, which are discussed in detail. These papers will be of interest to all researchers and graduate students working in the fields of nonlinear and inverse problems and its applications.
