

Contents

Preface	ix
List of Workshop Participants	xi
Multiple Illumination Quantitative Photoacoustic Tomography Using Transport and Diffusion Models BEN COX, TANJA TARVAINEN, and SIMON ARRIDGE	1
Combined Source and Attenuation Reconstructions in SPECT GUILLAUME BAL and ALEXANDRE JOLLIVET	13
Non-uniqueness Result for a Hybrid Inverse Problem GUILLAUME BAL and KUI REN	29
Local Non-injectivity for Weighted Radon Transforms JAN BOMAN	39
Inverse Gravimetry Approach to Attenuated Tomography ALEXANDER L. BUKHGEIM	49
Transformation Optics and Approximate Cloaking HONGYU LIU and TING ZHOU	65
Stability of the Gauge Equivalent Classes in Inverse Stationary Transport in Refractive Media STEPHEN MCDOWALL, PLAMEN STEFANOV, and ALEXANDRU TAMASAN	85
Basic Theory for Generalized Linear Solid Viscoelastic Models JOYCE McLAUGHLIN, ASHLEY THOMAS, and JEONG-ROCK YOON	101
Current Density Impedance Imaging ADRIAN NACHMAN, ALEXANDRU TAMASAN, and ALEXANDER TIMONOV	135
Possibilities and Limitations of Time Domain Wave Equation Imaging FRANK NATTERER	151
On Singularities and Instability of Reconstruction in Thermoacoustic Tomography LINH V. NGUYEN	163

Micro-tomography of Coherent X-ray Scatter Using an X-ray Collimator and Spectral Imaging Array

DIANE R. EAKER, STEVEN M. JORGENSEN, CONGWU CUI,
and ERIK L. RITMAN

171