

Breast Ultrasound Tomography Problem: Simulation with Noisy Models

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The work is devoted to the problem of determining small sound speed fluctuations in glandular tissues for specific breast model. The speaker and his research group's approach is based on visualization of inclusions and unknown inner boundary between fat and glandular tissues and determination of sound speeds in inclusions using kinematic argument. In this work they examine their algorithm for stability with respect to a noise in the original breast sound speed model. They use Gaussian and alpha-stable noises with different intensity.