

**Inverse Source Scattering for Elasticity Problems**

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Recent progress on scattering and inverse scattering for elasticity problems will be discussed. The problems arise in diverse application areas including seismic imaging, nondestructive testing, and materials design and analysis. For the scattering problems, recent results on the boundary integral equation methods will be presented. Concerning inverse scattering, a nearly Lipschitz stability result will be presented for the multiple frequency case, which overcomes the ill-posedness of the fixed frequency inverse source scattering (ISS) problems. Uniqueness questions on ISS for the time-dependent elasticity problems will be addressed. Related ongoing research and open problems will be highlighted.