

## **Inverse Source Problems for Wave Equations**

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The speaker and his collaborators consider wave propagation caused by an inhomogeneous source term embedded in a homogeneous medium. The source term is supposed to be the product of a spatial function and a temporal function with compact support. By Fourier transform, the inverse source problems in the time-domain are transformed to equivalent problems in the Fourier domain with multi-frequency data. They show uniqueness and stability in determining both spatial and temporal functions from radiated wave fields on a large sphere or at one receiver over a finite time interval in three dimensions.