

Thermoacoustic Transforms

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The measured data in thermoacoustic tomography with ideal point detectors is the trace on (part of) the boundary of a domain of the solution of an initial value problem for the wave equation. In this talk I will present a range characterization for the traces of solutions of the constant speed wave equation with one non-zero smooth initial datum in the ball in odd dimensions. (This is joint work with Rakesh.) I will also discuss inversion in one model where detectors have anisotropic response.