1116-35-1411   **Yang Yang*** (`yang926@purdue.edu`). *Thermoacoustic Tomography in Bounded Domains.*

We study the mathematical model of thermoacoustic tomography in bounded domains with perfect reflecting boundary conditions. We propose an averaged sharp time reversal algorithm which solves the problem with an exponentially converging Neumann series. Numerical reconstruction is implemented in both full boundary data and partial boundary data cases. This is joint work with Plamen Stefanov. (Received September 19, 2015)