1046-35-926Yulia Hristova (ygh@math.tamu.edu), Mathematics Department, Texas A&M University, College<br/>Station, TX 77843-3368, Peter Kuchment\* (kuchment@math.tamu.edu), Mathematics<br/>Department, Texas A&M University, College Station, TX 77843-3368, and Linh Viet Nguyen<br/>(lnguyen@math.tamu.edu), Mathematics Department, Texas A&M University, College Station,<br/>TX 77843-3368. On singularity reconstruction in thermoacoustic tomography. Preliminary report.

The talk describes the instability effects arising due to incomplete data or trapping effects in thermoacoustic tomography. A simple microlocal explanation of these effects is provided. (Received September 12, 2008)