

1097-35-489

Roberto Triggiani* (rtrggani@memphis.edu) and **Shitao Liu**. *An inverse problem for a third order PDE arising in high-intensity ultrasound: global uniqueness and stability by one boundary measurement.*

Both canonical recovery (inverse) problems of (i) uniqueness and (ii) stability are investigated for a third order (in time) PDE arising in high-intensity ultrasound, by means of just one boundary measurement performed on an appropriate portion of the boundary. Final results are expressed in terms of sharp assumptions on the data. Carleman estimates in Lasiecka-Triggiani-Zhang's work (2000) for second order hyperbolic equations are one of the key tools of this investigation. (Received January 28, 2014)