1077-35-744 Vincent Jugnon* (vjugnon@math.mit.edu), Habib Ammari, Hyeonbae Kang, Mark Asch and Lili Guadarrama Bustos. Transient wave imaging with limited-view data.

We consider for the wave equation the inverse problem of identifying locations of point sources and dipoles from limitedview data. Using as weights particular background solutions constructed by the geometrical control method, we recover classical imaging algorithms by appropriately averaging limited-view data. We show both analytically and numerically that if one can construct accurately the geometric control, then one can perform imaging with the same resolution using limited-view as using full-view data. (Received September 12, 2011)