1037-53-149   **Venky P Krishnan*** (`venky.krishnan@tufts.edu`), Dept. of Mathematics, 503, Boston Avenue, Medford, MA 02155. *A support theorem for the geodesic ray transform.*

Let $(M, \partial M, g)$ be a compact simple Riemannian manifold with boundary and with the metric g real-analytic. We consider the geodesic ray transform on M and prove a version of the classical Helgason's support theorem for this transform. The proof uses analytic microlocal analysis and a microlocal version of Holmgren's uniqueness theorem due to Kawai-Kashiwara-Hörmander, first used in the integral geometry setting by Boman and Quinto. (Received January 30, 2008)