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Eric Todd Quinto* (equinto@tufts.edu), Tufts University, Medford, MA, USA, and **Yiying Zhou** (zhou.yiyi@kendle.com), Kendle International, Inc., Old Lyme, CT, USA. *Uniqueness and Support Theorems for spherical Radon transforms.*

We prove support and uniqueness theorems for sphere transforms on R^n and on manifolds. We prove a local two radius theorem for arbitrary real analytic manifolds (with sufficiently large injectivity radius). Our theorems are related to the classical local two-sphere theorems of Berenstein, Gay, Zalcman, and others. However, our proofs are microlocal and geometric in nature rather than analytic. If time allows, we will give other uniqueness theorems.

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