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Colin Guillarmou and **Jie Qing***, UC Santa Cruz, Santa Cruz, CA 95064. *Spectral characterization of Poincaré-Einstein manifolds with infinity of positive Yamabe type.*

In this paper, we give a sharp spectral characterization of conformally compact Einstein manifolds with conformal infinity of positive Yamabe type. More precisely, we prove that the largest real scattering pole of a conformally compact Einstein manifold (X, g) is less than $\frac{n}{2} - 1$ if and only if the conformal infinity of (X, g) is of positive Yamabe type. (Received April 09, 2010)