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Heather Macbeth* (hmacbeth@mit.edu). *Conformal classes realizing the Yamabe invariant.*

I will present an algebraic characterization of the conformal classes realizing a compact manifold's Yamabe invariant (if any such classes exist). This characterization is a nonlinear analogue of an observation of Nadirashvili for metrics realizing the maximal first eigenvalue, and of an observation of Fraser and Schoen for metrics realizing the maximal first Steklov eigenvalue. (Received September 16, 2015)