

# Extremal Eigenvalues of the Conformal Laplacian

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I will report on joint work with Mathew J. Gursky in which we consider the problem of extremizing eigenvalues of the conformal laplacian in fixed conformal classes. I will explain the connection of these extremal metrics to constant curvature metrics (Yamabe metrics), to the existence of harmonic maps into spheres, and to nodal solutions of a Yamabe type equation (first noticed by Ammann-Humbert).