

abstract

PRINCETON-RUTGERS-IAS JOINT ANALYSIS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

In joint work with J. Viaclovsky, we studied the problem of prescribing symmetric functions of the eigenvalues of the Schouten tensor for a conformal metric on a compact manifold (often referred to as the "Sigma-k Yamabe problem"). This is equivalent to solving a fully nonlinear elliptic equation of second order. Assuming the function satisfies certain structural conditions, and the underlying manifold satisfies a natural 'admissibility' condition, we prove a priori estimates for solutions. The proof involves a blow-up analysis and classification of certain global singular solutions.