TEMPLE UNIVERSITY
Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, February 9, 2015, 2:40 p.m.

Inverse iteration for p-ground states

by Ryan Hynd

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Inspired by the inverse iteration technique for symmetric matrices, we present an iteration scheme for ground states of the p-Laplacian. p-ground states are minimizers of the certain Rayleigh quotient and also solutions of given nonlinear eigenvalue problem. Along with verifying the convergence of this scheme, we will characterize the iteration scheme in limit of large values of p and comment why this is of special interest.