

Zhi-Qiang Wang, IMA and Utah State University

"Symmetry of extremal functions for weighted Sobolev inequalities"

ABSTRACT:

We present some recent results on the study of symmetry property of extremal functions for a family of weighted Hardy-Sobolev inequalities due to Caffarelli, Kohn and Nirenberg. The results are on symmetry breaking of extremal functions, exact symmetry property of non-radial extremal functions as well as bound state solutions of the associated PDEs.