A LOWER BOUND FOR THE PRINCIPAL EIGENVALUE OF FULLY NONLINEAR ELLIPTIC OPERATORS

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In this poster we present a new technique to obtain a lower bound for the principal Dirichlet eigenvalue of a fully nonlinear elliptic operator. We illustrate the construction of an appropriate radial function required to obtain the bound in several examples. In particular we use our results to prove that

$$\lim_{p \to \infty} \lambda_{1,p} = \lambda_{1,\infty} = \left(\frac{\pi}{2R}\right)^2$$

where $\lambda_{1,p}$ and $\lambda_{1,\infty}$ are the principal eigenvalue for the homogeneous *p*-laplacian and the homogeneous infinity laplacian respectively.

The article in which the poster is based is available at arxiv.org/pdf/1709.02455.pdf

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