Geometry Seminar

Estimates of eigenvalues of an elliptic differential system in divergence form

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Abstract. In this seminar, we present universal estimates of eigenvalues of a coupled system of elliptic differential equations in divergence form on a bounded domain in an Euclidean space. As an application we consider a countable family of bounded domains in Gaussian shrinking soliton that makes the behavior of known estimates of eigenvalues of the Laplacian invariant by a first-order perturbation of the Laplacian.

References

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[2] Q.M. Cheng, H.C. Yang, Universal inequalities for eigenvalues of a system of elliptic equations, Proc. Roy. Soc. Edinburgh Sect. A 139 (2009) 273–285.

[3] J.N.V. Gomes and J.F.R. Miranda, Eigenvalue estimates for a class of elliptic differential operators in divergence form, Nonlinear Anal. 176 (2018) 1-19.

[4] H.C. Yang, An estimate of the difference between consecutive eigenvalues, preprint IC/91/60 of ICTP, Trieste, 1991.