

TALK PROPOSAL BY F. NOBILI

TITLE. On the stability of Sobolev inequalities on Riemannian manifolds

ABSTRACT. In this talk, we present recent advances around the problem of stability of Sobolev inequalities in the context of Riemannian manifolds. After a quick review of the literature, we show quantitative and qualitative stability results for different classes of Sobolev inequalities of both geometric and functional flavour. Emphasis will be given to the setting of Ricci curvature lower bounds focusing on intriguing non-smooth methods such as fine symmetrization techniques on metric spaces and generalized concentration compactness results. Based on joint works with D. Parise and I. Y. Violo.