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**Mayukh Mukherjee\*** (mayukh@live.unc.edu). *Extremal values of the (fractional) Weinstein functional on Riemannian manifolds.*

We make a study of Weinstein functionals (first defined by Michael Weinstein) on compact Riemannian manifolds with boundary with Dirichlet boundary conditions, and also on the hyperbolic space  $\mathbb{H}^n$ . As is known, the Weinstein functional maximiser gives standing wave solutions to nonlinear Schrödinger and Klein-Gordon equations. The aim of the talk is to establish that the maximum value of the Weinstein functional on  $\mathbb{H}^n$  is the same as that on  $\mathbb{R}^n$  and the related fact that the maximum value of the Weinstein functional is not attained on  $\mathbb{H}^n$ , when maximisation is done in the Sobolev space  $H^1(\mathbb{H}^n)$ , proving a conjecture made by Christianson-Marzuola-Metcalf-Taylor and also answers questions raised in several other papers (one by Banica, for example). If time permits, we shall try to prove that a corresponding version of the conjecture will hold for the Weinstein functional with the fractional Laplacian as well. (Received September 12, 2014)