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**François Ledrappier\*** (fledrapp@nd.edu), Department of Mathematics, University of Notre Dame, Notre Dame, IN 46556-4618. *Boundary measures minimizing the Rayleigh quotient.* Preliminary report.

Let  $M$  be a compact manifold with negative curvature,  $\widetilde{M}$  its universal cover,  $\partial\widetilde{M}$  the boundary at infinity of  $\widetilde{M}$ . Olivier Mohsen defined the Rayleigh quotient of an equivariant family of measures on  $\partial\widetilde{M}$ . We show (joint work with Seonhee Lim) that there exist a minimizing family. In this talk, we describe the construction of this minimizing family and some of its properties. (Received August 31, 2014)