1015-46-252 Alfonso Castro*, Department of Mathematics, Harvey Mudd College, Claremont, CA 91711.

Nonradial solutions to a radial boundary value problem.

We establish the existence of infinitely many nonradial radial solutions to a radial elliptic boundary value problem by taking advantage of the spectral properties of the set of radial functions in the Sobolev space $H^{0,1}(B)$. This is joint work with Professor Monica Clapp (UNAM, Mexico) and Professor Hugo Aduen (Universidad de Cordoba, Colombia) (Received February 07, 2006)