CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, February 22
3:00 – 4:00 PM
Maria Sanford, Room 101

SPECTRUM OF THE LAPLACIAN FOR ROTATIONAL CMC HYPERSURFACES OF THE SPHERE

OSCAR PERDOMO

CENTRAL CONNECTICUT STATE UNIVERSITY

Abstract: In this talk we will explain the construction of all rotational Constant Mean Curvature (CMC) hypersurfaces of the sphere by showing that every CMC hypersurface with two principal curvatures must be rotational. Then, we will explain how to compute the spectrum of the Laplacian on these hypersurfaces. As an example, we pick an immersed minimal 3-dimensional rotational hypersurface of the 4-dimensional unit sphere and we compute the first three eigenvalues of the Laplacian.

For further information:
gotchevi@ccsu.edu 860-832-2839
http://www.math.ccsu.edu/gotchev/colloquium/