CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, February 1
2:00 – 3:00 PM
Maria Sanford, Room 101

MINIMAL HYPERSURFACES OF SPHERES

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Abstract: Let M be a compact minimal hypersurface immersed in the unit n dimensional sphere S^n. M is said to be algebraic of order k, if for some irreducible homogeneous polynomial $f : R^{n+1} \to R$ of degree k we have that $M = f^{-1}(0) \cap S^n$.

In this talk we will explain the difficulties in the problem of characterizing algebraic minimal hypersurfaces in S^n and we will also explain the complete characterization for the case of minimal order 3 algebraic surfaces in S^3.