

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, December 1

2:00 – 3:00 PM

Maria Sanford, Room 101

MINIMAL SUBMANIFOLDS OF S^3 INVARIANT UNDER ONE REFLECTION

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Abstract: The purpose of this talk is to discuss progress made toward solving a long standing conjecture of Lawson that says that the only compact minimal surfaces of genus 1 embedded in the three dimensional sphere are the Clifford tori. In particular, we will show that if an embedded minimal torus in the three dimensional sphere is invariant under one reflection then it is the union of two isometric cylinders and moreover, this torus must be conformally equivalent to a rectangular torus. We will also explain the importance of studying compact minimal hypersurfaces of spheres in relation with the existence of smooth solutions of area minimizing hypersurfaces in a general manifold.

This talk should be accessible to a general mathematics audience.

AFTERMATH:

Refreshments will follow the colloquium at Castaneda's
(1590 Stanley St. – across from the administration building)

For further information:

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You can find articles authored by Oscar Perdomo at <http://www.lehigh.edu/~osp206/>