

# GEOMETRIC ANALYSIS SEMINAR

**“The topology of min-max minimal surfaces”**

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Abstract: The min-max theory introduced by Almgren-Pitts and refined later by Simon-Smith allows one to construct minimal hypersurfaces in Riemannian manifolds in great generality. The challenge is to control the geometry of the minimal surfaces produced in this way. I will survey some situations where the geometry can be controlled. In particular, I will explain some joint work with F. C. Marques and A. Neves where a sharp area estimate for catenoids allows one to rule out the phenomenon of multiplicity, and some further applications of this idea.

**Wednesday, September 14<sup>th</sup>, 2016  
MIT, Room 4-153  
Time: 4:00 PM**

