GEOMETRIC ANALYSIS SEMINAR

"Min-max minimal hypersurfaces with free boundary"

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Abstract: I will present a joint work with Martin Li. Minimal surfaces with free boundary are natural critical points of the area functional in compact smooth manifolds with boundary. In this talk, I will describe a general existence theory for minimal surfaces with free boundary. In particular, I will show the existence of a smooth embedded minimal hypersurface with free boundary in any compact smooth Euclidean domain. The minimal surfaces with free boundary were constructed using the min-max method. Our result allows the min-max free boundary minimal hypersurface to be improper; nonetheless the hypersurface is still regular.

Wednesday, May 3rd, 2017
MIT, Room 2-131
Time: 4:00PM

Massachusetts Institute of Technology