Mathematics, Statistics, and Computer Science **@ UIC**

Departmental Colloquium

Wow, so many minimal surfaces!

Andre Neves (University of Chicago and Imperial College London)

Abstract: Minimal surfaces are ubiquitous in geometry and applied science but their existence theory is rather mysterious. For instance, Yau in 1982 conjectured that any 3-manifold admits infinitely many closed minimal surfaces but the best one knows is the existence of at least three.

After a brief historical account, I will talk about my ongoing work with Marques and the progress we made on this question jointly with Irie and Song: we showed that for generic metrics, minimal hypersurfaces are dense and equidistributed. In particular, this settles Yau's conjecture for generic metrics.

Friday, April 6 at 3:00 PM in SEO 636