Minimal surfaces with free boundary

Dávi Máximo, Ivaldo Nunes*, Graham Smith

*Universidade Federal do Maranhão - UFMA

Resumo

In this talk we will discuss the free boundary problem for minimal surfaces. Our main goal is to deal with the existence of such surfaces. In particular, we prove that every strictly convex compact domain of $\mathbb{R}^3$ contains a properly embedded free boundary minimal surface which is topologically equivalent to an annulus. This is a joint work with D. Máximo (Stanford University) and G. Smith (Universidade Federal do Rio de Janeiro - UFRJ).