Abstract:
In this talk I will introduce two different notions of solutions to the Plateau Problem, called Area and Size minimizers, due respectively to Federer-Fleming and Almgren. The fundamental difference between them is whether multiplicity/orientation plays a role or not, and they were originated respectively to describe integral homology class and soap films. I will then explain how different types of singularities arise in both formulation and some recent progress made on the structure of the singular set and of minimizers near singularities. If time permits I will also explain some possible future developments.