



Topology Seminar at Texas State

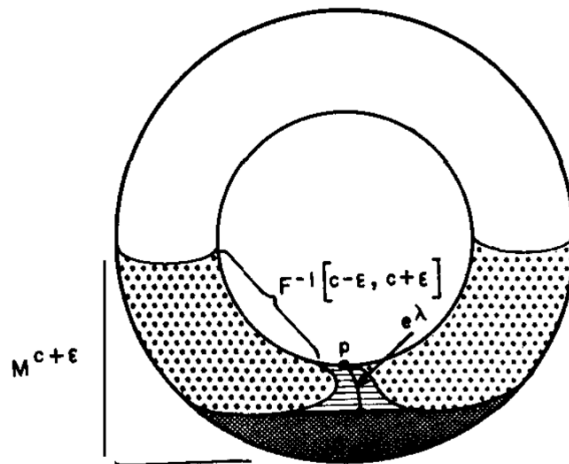
When: Friday, March 10, 2023, 11:00 a.m.

Where: DERR 333 *and* ZOOM (Zoom info at bottom of page)

Presenter: Dr. Nestor Guillen

Title: Topology and the calculus of variations

Abstract: In this talk, I will discuss interactions between the calculus of variations and the topology of manifolds, leading up to a bird's eye view of a landmark result in mid-20th century mathematics, Bott's periodicity theorem. I will recount Marston Morse's discovery that given a smooth function in a differentiable manifold, one can recover the topology of the manifold (up to homotopies) from the information of the critical points of the function. Then I will describe some aspects of Riemann geometry and the calculus of variations, which Bott used in combination with Morse theory to understand the topology of the space of loops in a manifold.



Zoom Information

Meeting URL ([click this](#))
Meeting ID: 977 0390 3382
Password: manifolds