

University of Notre Dame Department of Mathematics

# TOPOLOGY SEMINAR

**Lizhen Qin**

Wayne State University

*Will give a lecture entitled:*

## **On Moduli Spaces and CW Structures Arising from Morse Theory on Hilbert Manifolds**

*On*

Thursday, January 20, 2011

*At*

1:00 PM

*In*

258 Hurley Hall

### ***Abstract***

This talk will focus on various results concerning the moduli spaces of broken flow lines associated with a Morse function on a Hilbert-Riemannian manifold. We study the compactness of flow lines, manifold structures of certain compactified moduli spaces, orientation formulas, and CW structures on the underlying manifold. I will end the talk with questions concerning how to generalize these results to other more difficult situations.