

**TOPOLOGY SEMINAR**

**Guest Speaker: Jennifer Garbett**  
**University of Notre Dame**

**Date:** Tuesday, October 25, 2016

**Time:** 9:00 AM

**Location:** 125 Hayes-Healy Hall

***Lecture Title:***

**A Geometric Description of Vertex Algebras Via Factorization Algebras**

***Abstract***

Factorization algebras are one "approximation" to physicists' quantum field theories. In this talk, I will introduce factorization algebras and then construct the factorization algebra of quantum observables for a particular classical field theory. I will use this factorization algebra to describe the Heisenberg vertex algebra geometrically. I will also discuss a "super" analog of this construction.