

**TOPOLOGY SEMINAR**

**Guest Speaker: Nick Rozenblyum**  
**University of Chicago**

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

**Time:** 3:00 PM

**Location:** 258 Hurley Hall



**Lecture Title:**

**Topological applications of quantization in derived geometry**

**Abstract**

Derived geometry, and particularly the theory of shifted symplectic structures, has recently become a central tool in mathematical physics. Roughly, the theory of shifted symplectic structures is a homotopical version of symplectic geometry. In addition to being a natural setting for the BV approach to Feynman integration, this theory provides a robust framework for various counting problems in geometry and topology, such as the Casson invariant and its generalizations. I will give a brief overview of the general theory and describe some of the topological applications.