

Speaker: **Augusto Stoffel**
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Tuesday, March 15, 2016

3:00 pm

Room: 258 Hurley Hall

Title: Holonomy of gerbes around super loops and twisted field theories

Abstract:

A gerbe with band \mathbb{C}^\times is analogous to a line bundle, but one categorical level higher—a bundle with fiber the category of complex lines. Just like a complex line bundle with connection determines a \mathbb{C}^\times -valued function on the loop space of the base (the holonomy), a gerbe with connection determines a line bundle on the loop space. Motivated by field theories, we will consider a super version of that construction, where loops are 1—1-dimensional, and its relation with complexified twisted K-theory.

The base space will actually be an orbifold, so the above concerns equivariant cohomology with respect to finite group actions.