Department of Mathematics
University of Notre Dame

TOPOLOGY SEMINAR

Guest Speaker: Filip Dul
University of Massachusetts at Amherst

Date: Tuesday, October 5, 2021
Time: 2:30 PM
Location: Zoom
Zoom Link: notredame.zoom.us/j/97262637721

Lecture Title:
General Covariance from the Viewpoint of Stacks

Abstract
General covariance is a crucial notion in the study of field theories on curved spacetimes. Roughly, a generally covariant field theory is one that is defined with respect to a background semi-Riemannian metric such that it is only sensitive to the diffeomorphism classes of that metric. In other words, the bundle of theories over the space of semi-Riemannian metrics is equivariant with respect to the diffeomorphism group of the underlying spacetime. In this talk, we will make the preceding ideas precise using stacks and introduce examples, using the Batalin-Vilkovisky formalism to discuss classical field theories.

Filip Dul - University of Massachusetts at Amherst