

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

## GENERAL COVARIANCE FROM THE VIEWPOINT OF STACKS

Philip Dul  
UMass Amherst

Dec 8, 2022, 4-5pm  
MCS B31

Tea: 3:45pm in Room B24

**Abstract:** General covariance is a crucial notion in the study of field theories on curved spacetimes. For us, 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 by discussing examples and introducing stacks.

See <http://math.bu.edu/research/geom/seminar.html> or contact Yu-Shen Lin ([yslin@bu.edu](mailto:yslin@bu.edu)) or Siu-Cheong Lau ([lau@math.bu.edu](mailto:lau@math.bu.edu)) for more information.