## BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

## EQUIVARIANT CHERN CHARACTERS ON LOOP SPACE

**Tom McCauley** Boston University

Sept 24, 2014, 4:00 – 5:00pm Math/Computer Science, Room 148 111 Cummington Street, Boston

Tea: 3:45pm in Room MCS 144

Abstract: The loop space of a manifold is the space of maps from the circle into the manifold. It has gathered some interest in the study of Dirac operators, because the index of the Dirac operator can be formally written as an integral over loop space. In this talk we will discuss the natural circle action on the loop space and the resulting  $S^1$ -equivariant cohomology theories. There are two equivariant Chern characters on loop space, belonging to different  $S^1$ -equivariant cohomology theories. We will show that, after passing to a common  $S^1$ -equivariant cohomology theory, the Chern characters agree.

See http://math.bu.edu/research/geom/seminar.html or contact Ryan Grady regrady@math.bu.edu for more information.