

BOSTON UNIVERSITY GEOMETRY SEMINAR

CHARACTERISTIC CLASSES FOR SOME INFINITE DIMENSIONAL LIE GROUPS

Steve Rosenberg
Department of Mathematics
Boston University

March 21, 2012, 3:00 – 4:00pm
Math/Computer Science, Room B21
111 Cummington Street, Boston

Tea: 2:45pm in Room 144

Abstract: Infinite rank bundles with infinite dimensional structure groups appear naturally in geometry and mathematical physics, for example with loop spaces and in the setup of the families index theorem. These structure groups include gauge groups and groups of pseudodifferential operators. For these groups, there are Chern-Weil and Chern-Simons theories, resulting in characteristic classes as computable as in finite dimensions. I'll discuss the theory and at least one application.

See <http://math.bu.edu/research/geom/seminar.html> or contact Takashi Kimura kimura@math.bu.edu for more information.