

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

## THE RELATIVE COMPACTIFICATION OF THE UNIVERSAL CENTRALIZER

Ana Balibanu  
Harvard University

October 11, 2017, 4:00 – 5:00pm  
Math/Computer Science, Room 148  
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

**Abstract:** Let  $G$  be a semisimple algebraic group of adjoint type. The universal centralizer  $\mathcal{Z}$  is the family of centralizers in  $G$  of regular elements in  $\text{Lie}(G)$ . This algebraic variety has a natural symplectic structure, obtained by Hamiltonian reduction from the cotangent bundle  $T^*G$ . We introduce a relative compactification of  $\mathcal{Z}$ , in which every centralizer fiber is replaced by its closure in the wonderful compactification of  $G$ . We show that the symplectic structure extends to a log-symplectic structure on the boundary, using the logarithmic cotangent bundle of the wonderful compactification.

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