

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

**MISHCHENKO-FOMENKO THEORY ON A
SPECIAL FAMILY OF HESSENBERG
VARIETIES**

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October 17, 2018, 4:00 – 5:00pm
Math/Computer Science, Room 148
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

Abstract: Kostant's realization of the Toda lattice has given rise to a fascinating hybrid of ideas from symplectic geometry, algebraic geometry, and representation theory. A modern example is the appearance of this Kostant-Toda lattice in calculations related to the quantum cohomology of the flag variety. It is in this setting that one compactifies the leaves of the Kostant-Toda lattice, thereby constructing a certain class of Hessenberg varieties. It is then reasonable to expect that the Kostant-Toda lattice can be defined on (the total space of) a family of Hessenberg varieties. I will show this to be the case, emphasizing the fundamental role played by Mishchenko-Fomenko theory on semisimple Lie algebras. This represents joint work with Hiraku Abe.

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