BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

SYMMETRIES IN THE BV FORMALISM & HIGHER KAC-MOODY ALGEBRAS

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November 29, 2018, 4:00 – 5:00pm

Math/Computer Science, Room B21

111 Cummington Street, Boston

Tea: 3:45pm in Room B21

Abstract: In symplectic geometry the notion of a moment map encodes beautifully the idea of a symmetry of a mechanical system. Shifted symplectic geometry appears naturally in classical field theories when treated in the classical Batalin-Vilkovisky formalism, and there is a parallel notion of a moment map that encodes a homological version of Noether's theorem. BV quantization of this moment map encodes the current algebras of QFT, and it provides a useful perspective on many anomalies. We will discuss these ideas and introduce some examples recently developed with B. Williams, which provide a systematic generalization of the affine Lie algebras arising from higher dimensional holomorphic field theories.

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.