

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

**MULTIPLICATIVE UNIVERSAL  
CENTRALIZER: BRUHAT STRATIFICATION,  
CLUSTER STRUCTURE AND APPLICATIONS**

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CCDS 365, Apr 16, 2024, 4-5pm

Tea: 3:45pm in Room 365

**Abstract:** Abstract: I'll discuss what I think is a fruitful and insufficiently appreciated geometric perspective on supersymmetric field theories. This perspective goes back at least forty years in the literature, and was notably appreciated by Manin, Deligne, and Kapranov; it postulates, in particular, that the supersymmetric analogue of a conformal class of Riemannian metrics is a subbundle of the tangent bundle of maximal odd dimension, which fails to be involutive in a prescribed fashion. I'll give a model for a ringed-space structure based on this data, as well as a model for the formal deformations of such a structure. The latter gives a rigorous and example-independent approach to conformal supergravity backgrounds."

See <http://math.bu.edu/research/geom/seminar.html> or contact Yu-Shen Lin ([yslin@bu.edu](mailto:yslin@bu.edu)) or Brian Williams ([bwill22@bu.edu](mailto:bwill22@bu.edu)) for more information.