BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

ATIYAH CLASSES AND HOMOTOPY ALGEBRAS

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Dec 4, 2013, 4:00 – 5:00pm
Math/Computer Science, Room 148
111 Cummington Street, Boston

Tea: 3:45pm in Room MCS 144

Abstract: The Atiyah class of a holomorphic vector bundle E is the obstruction to the existence of a holomorphic connection on E. A theorem of Kapranov states that, for a complex manifold X, the Atiyah class of T_X makes $T_X[-1]$ into a Lie algebra object in the derived category $D^+(X)$. Furthermore, Kapranov proved that, for Kaehler manifolds, this Lie algebra structure stems from an L_∞ algebra structure on $\Omega^{0,*}[-1](T_X)$. In this talk, we will show how Kapranov's theorems can be extended to the more general setting of Lie pairs of algebroids so as to produce new homotopy algebras.

See `http://math.bu.edu/research/geom/seminar.html` or contact Si Li
sili@math.bu.edu for more information.