

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

NONCOMMUTATIVE MIRROR FUNCTORS

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October 1, 2015, 4:00 – 5:00pm
Math/Computer Science, Room B21
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

Abstract: Homological mirror symmetry tells us that there is an equivalence between the Fukaya category of a Kähler manifold X and the matrix factorization category of its Landau-Ginzburg(LG) mirror $(Y, W : Y \rightarrow \mathbb{C})$. I will explain the construction of “localized” LG mirror of X from a given immersed Lagrangian \mathbb{L} in X , which admits a “noncommutative feature in general. Also, there is a natural functor from the Fukaya category of X to the matrix factorization category of $(Y_{\mathbb{L}}, W_{\mathbb{L}})$. I will briefly explain such a construction, and apply this to an example of a certain orbifold sphere to see that the resulting mirror is well-known Sklyanin algebra together with its central element. This is a joint work with Cho and Lau.

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