NONCOMMUTATIVE MIRROR FUNCTORS

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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 $(Y, W : Y \to \mathbb{C})$. I will explain the construction of “localized” LG mirror of $X$ from a given immersed Lagrangian $L$ 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 $(Y_L, W_L)$. 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.