DONALDSON-THOMAS TRANSFORMATIONS
FOR MODULI SPACES OF LOCAL SYSTEMS
ON SURFACES

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Psychology, Room PSY B49
64-86 Cummington Mall, Boston

Tea: 3:45pm in Room MCS 144

Abstract: Kontsevich and Soibelman defined Donaldson-Thomas invariants of a 3d Calabi–Yau category with a stability condition. Any cluster variety gives rise to a family of such categories. Their DT invariants are encapsulated in single formal automorphism of the cluster variety, called the DT-transformation. An oriented surface $S$ with punctures, and a finite number of special points on the boundary give rise to a moduli space, closely related to the moduli space of $PGL(m)$-local systems on $S$, which carries a canonical cluster Poisson variety structure. We determine the DT-transformation of this space. This is a joint work with Alexander Goncharov.

See http://math.bu.edu/research/geom/seminar.html or contact Lino Amorim (lamorim@bu.edu) or Siu Cheong Lau (lau@math.bu.edu) for more information.