

# Seminar on mirror symmetry and representation theory

Tuesday, April 11, 5:00-6:30, MIT, Room 2-132.

## Triangulated categories of singularities and B-branes in Landau-Ginzburg models

by Rina Anno (Harvard).

**Abstract.** Let  $X$  be the affine space  $\mathbf{A}^N$  and  $W$  be a homogeneous polynomial of degree  $D$ . Then one can establish a relation between the triangulated category of graded  $B$ -branes in the Landau-Ginzburg model  $(X, W)$  and the bounded derived category of coherent sheaves on the hypersurface  $W = 0$ . This follows from a more general result involving graded triangulated categories of singularities  $\mathbf{D}_{Sg}^{gr}(A)$  (for a Gorenstein algebra  $A$ ) as an intermediate object. After Orlov's work [math.AG/0503632](https://arxiv.org/abs/math/0503632).

Seminar contacts: Denis Auroux ([auroux@math.mit.edu](mailto:auroux@math.mit.edu))  
Roman Bezrukavnikov ([bezrukav@math.mit.edu](mailto:bezrukav@math.mit.edu))  
Rina Anno ([rina@math.harvard.edu](mailto:rina@math.harvard.edu))