

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

3D A & B MODELS, MIRROR SYMMETRY, AND HOMFLY HOMOLOGY

Tudor Dimofte
Edinburgh University & UC Davis

October 14, 2020, 4-5pm

Zoom link:

<https://bostonu.zoom.us/j/97456419902?pwd=Vk5hdGQ0dlgwTXZkZ1hRUHM0WndqZz09>

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Abstract: I will review some what's known about topological A and B twists of 3d $N=4$ supersymmetric gauge theories, in particular the algebraic/categorical structures that they contain. The physical duality known as 3d mirror symmetry exchanges 3d A and B twists, and should manifest mathematically as a higher analogue of homological mirror symmetry. I will then explain how these ideas may be concretely applied to reproduce and connect several different constructions of HOMFLY-PT homology (soon to appear in work with Garner, Hilburn, Oblomkov, and Rozansky).

See <http://math.bu.edu/research/geom/seminar.html> or contact Yu-Shen Lin (yslin@bu.edu) or Siu-Cheong Lau (lau@math.bu.edu) for more information.