

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

A TALE OF FOUR THEORIES

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March 13, 2017, 4:00 – 5:00pm
MCS B21
111 Cummington Street, Boston

Tea: 3:45pm in Room MCS 144

Abstract: Around a decade ago the following four $(\mathbb{C}^*)^2$ -equivariant theories are proven to be equivalent:

- (1) Gromov-Witten theory of $\mathbb{P}^1 \times \mathbb{C}^2$ relative to three fibers;
- (2) Donaldson-Thomas theory of $\mathbb{P}^1 \times \mathbb{C}^2$ relative to three fibers;
- (3) Quantum cohomology of Hilbert schemes of points on \mathbb{C}^2 ;
- (4) Quantum cohomology of symmetric product stacks of \mathbb{C}^2 .

In this talk we'll discuss these four equivalence. We'll also sketch some new development, namely higher genus extensions of these equivalences (joint work with R. Pandharipande).

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.