



**Speaker:** Emanuel Diaconescu  
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Wednesday, March 4, 2015  
4:00 PM  
117 Hayes-Healy Hall

**Title:** Donaldson-Thomas invariants and character varieties

**Abstract:**

A string theoretic framework will be presented relating the cohomology of character varieties to Donaldson-Thomas invariants of Calabi-Yau threefolds. A particular outcome of this construction is a string theoretic derivation of a conjecture of Hausel and Rodriguez-Vilegas.

A recursion formula for the Poincaré polynomial of the Hitchin system will be also derived from the wallcrossing formalism of Kontsevich and Soibelman. This is based on work with W.-y. Chuang and G. Pan.