

## Seminar/Talk

## The P=W conjecture on the moduli space of rank 2 Higgs bundles

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The cohomology ring of the moduli space of stable Higgs bundles over a Riemann surface is endowed with two filtrations: the weight filtration of mixed Hodge theory and the perverse filtration coming from the Hitchin system. The fact that these two filtrations coincide was proved by De Cataldo, Hausel and Migliorini in 2012 for the rank 2 case using geometric methods, while for higher ranks it is still unproven. In recent joint work with Hausel and Szenes, we give a new enumerative proof for rank 2 case. These methods might be extended to any rank. I will illustrate the main ideas of the proof and the problems that arise.

## Thursday, April 5, 2018 01:00pm - 03:00pm

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



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