## DAVESH MAULIK, MIT

Cohomology of the moduli of Higgs bundles and the Hausel-Thaddeus conjecture

I will discuss some results on the structure of the cohomology of the moduli space of stable  $SL_n$  Higgs bundles on a curve. As a consequence, we obtain a new proof of the Hausel-Thaddeus conjecture, proven previously by Groechenig-Wyss-Ziegler via p-adic integration. If time allows, I will also mention connections with the P=W conjecture. This is joint work with Junliang Shen.