Algebraic Geometry Seminar

The $P=W$ conjecture for $GL_n$

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Abstract: In 2010, de Cataldo-Hausel-Migliorini proposed a conjecture connecting topology of the Hitchin system and Hodge theory of the corresponding character variety via the non-abelian Hodge theory. This conjecture is now referred to as the $P=W$ conjecture. The purpose of this talk is to explain a recent proof of this conjecture (for $GL_n$) in joint work with Davesh Maulik for any rank and genus, where we combine tools from algebraic geometry and representation theory.