

The Hodge conjecture for moduli spaces of stable sheaves over nodal curves

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The Hodge conjecture is one of the most prominent problems in current mathematics. It is well-known that the Jacobian of a general, smooth curve satisfies the Hodge conjecture. It has been shown by Biswas and Narasimhan that the (smooth) moduli space of rank n semi-stable sheaves with fixed determinant of degree coprime to n , over a general, smooth curve of genus at least 2, also satisfies the Hodge conjecture. In this talk we will discuss recent work, joint with A. Dan, proving the Hodge conjecture for the desingularization of the moduli space of rank 2 stable sheaves with fixed odd degree determinant over a general nodal curve.