

Public Abstract

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Department:Mathematics

Degree:PhD

Title:On the Euler characteristics of certain moduli spaces of 1-dimensional closed subschemes.

Generalizing the ideas in [LQ] and using virtual Hodge polynomials as well as torus actions, we compute the Euler characteristics of some moduli spaces of 1-dimensional closed subschemes when the ambient smooth projective variety admits a Zariskilocally trivial fibration to a codimension-1 base. As a consequence, we partially verify a conjecture of W.-P. Li and Qin [LQ]. We also calculate the generating function for the number of certain punctual 3-dimensional partitions, which is used to compute the above Euler characteristics.