

GEOMETRY & PHYSICS SEMINAR

10 janeiro | 11:00 | sala 6.2.33

The cohomology ring of moduli spaces of 1-dimensional sheaves on P^2

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Abstract:

In this talk I will go over some recent results and conjectures concerning the cohomology (and in particular its ring structure) of the moduli spaces of stable 1-dimensional sheaves on the projective plane. The cohomology of such moduli spaces, together with its perverse filtration, is conjectured to be related to curve counting on the total space of the canonical bundle of P^2 . I will explain a strategy to fully describe the cohomology rings of moduli spaces of sheaves supported in curves up to degree 5, and how that can be used to verify this prediction in such degrees. If time allows, I will explain a new conjectural description of the perverse filtration which we have also verified up to degree 5.

This is based on joint work with Y. Kononov, W. Lim and W. Pi.

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