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Abstracts of Short Communications and Posters

Section:

4. Algebraic Geometry

1991 MS Classification: 14,81
Kabanov, Alexandre, Michigan State University, USA
Intersection theory on the moduli spaces of stable curves.
We study the intersection theory of the tautological Mumford–Morita–Miller classes on the moduli spaces of stable curves $\overline{\mathcal{M}}_{g,n}$ in genus 0 and 1. This allows us to classify rank one cohomological field theories in genus 1. A rank one cohomological field theory is a collection of cohomology classes which satisfies the restriction properties similar to those of the Mumford–Morita–Miller classes. As a next step, we study intersection numbers on the moduli spaces of stable maps in genus 0, where we introduce analogs of the Mumford–Morita–Miller classes. This is joint work with Takashi Kimura.
Reference: A. Kabanov, and T. Kimura, Intersection Numbers and Rank One Cohomological Field Theories in Genus One, `alg-geom/9706003`, to appear in *Comm. Math. Phys.*