

FRAGMENT

EXTENDING THE PRYM MAP

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The Torelli map associated to a genus g curve is its Jacobian - a g -dimensional principally polarized abelian variety. It turns out, by the works of Mumford and Namikawa in the 1970s (resp. Alexeev and Bruns in 2010s), that the Torelli map extends to a morphism from the Deligne-Mumford moduli of stable curves to the Voronoi (resp. perfect cone) toroidal compactification of the moduli of abelian varieties.

The Prym map associates to an étale double cover of a genus g curve its Prym - a principally polarized $(g-1)$ -dimensional abelian variety. The indeterminacy locus of the extension of this map to a map to the Voronoi toroidal compactification was studied by Alexeev, Birkenhake, and Hulek in 2000s, and in this talk we discuss the extension of the Prym map to a map to the perfect cone toroidal compactification, and a unified approach to all the results mentioned above.

Based on joint work with Casalaina-Martin, Hulek, Laza.

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3:00 p.m.

MATH 220