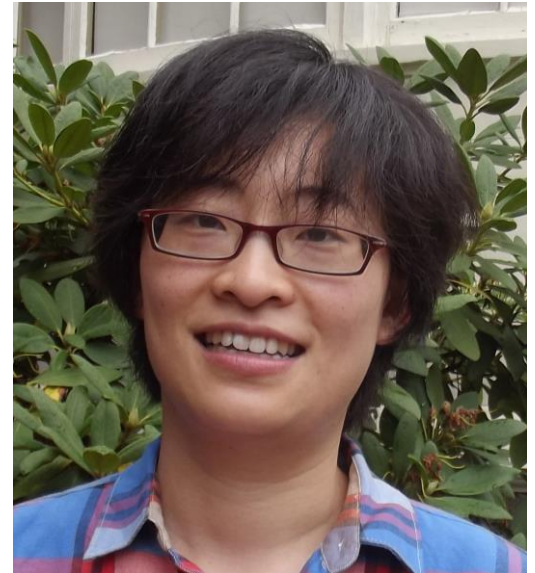


INTERSECTIONS

INAUGURAL
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Tropical curves, graph complexes, and the cohomology of M_g

Abstract:

The cohomology ring of the moduli space of curves of genus g is far from being fully understood. For example, in the 1980s Harer-Zagier showed that the Euler characteristic of M_g (up to sign) grows super-exponentially with g - yet most of this cohomology is not explicitly known. In joint work with Galatius and Payne, we identify a new source of rational cohomology in M_g in degree $4g - 6$, with dimension growing exponentially in g , disproving a vanishing conjecture of Kontsevich.

The talk will be followed by an informal discussion on the issue of diversity in Mathematics.

Organized by Intersections – women and gender minorities in Math at Yale with the support of the Mathematics Department.

Melody Chan
Brown University

February 21, 2019
4 p.m. LOM 215

Yale University