

Renata Picciotto

title: Desingularizations of sheaves and reduced invariants

Abstract: Given a coherent sheaf on an integral stack, there is a combination of blow-ups that can resolve the total cone of this sheaf into a union of vector bundles supported on substacks. I will outline this construction and explain how this can be applied in Gromov-Witten theory to separate contributions to genus  $g$  invariants coming from a union of reducible curves of lower genus. We use this to define reduced Gromov-Witten invariants in all genera, extending various previous constructions for genus 1 and 2 in the literature. This talk is based on arXiv: 2310.06727, a work joint with A. Cobos-Rabano, E. Mann and C. Manolache.