

Gromov-Witten Invariants of Kähler Surfaces by Spin Hurwitz Count

Junho Lee
University of Central Florida

The GW invariants of a Kähler surface X can be written in terms of local GW invariants of spin curves when X has a geometric genus $p_g > 0$ and a smooth canonical divisor. In a natural manner, the calculation of those local GW invariants leads to a certain count which we call “spin Hurwitz numbers”. These were introduced and studied by Eskin, Okounkov and Pandharipande. They calculated the spin Hurwitz numbers for some special cases. In this talk, I will talk about a recent result (with Thomas Parker): *calculation of all spin Hurwitz numbers that include all dimension zero local GW invariants of spin curves*. The same idea and method can be used for calculation of the local GW invariants of spin curves for general cases.