

1165-14-27

Qile Chen* (qile.chen@bc.edu), Maloney Hall, Fifth Floor, Department of Mathematics, Boston College, Chestnut Hill, MA 02467. *Logarithmic Gauged Linear Sigma Models*. Preliminary report.

I will introduce joint work with Felix Janda and Yongbin Ryan on compactifying Gauged Linear Sigma Models using logarithmic geometry. The logarithmic compactification admits two different virtual cycles — the reduced virtual cycle and the canonical virtual cycle, whose difference is given by a third virtual cycle given by the logarithmic boundary of the compactification. We further compute the canonical and reduced virtual cycles using the punctured logarithmic maps of Abramovich-Chen-Gross-Siebert. As an application, these developments provide a new method for computing higher genus Gromov-Witten invariants of complete intersections. (Received January 07, 2021)