

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

**TROPICAL CORRESPONDENCE FOR THE
LOG CALABI-YAU PAIR (\mathbb{P}^2, E)**

Tim Gabele
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February, 5, 2020, 4:00 – 5:00pm
Math/Computer Science, Room B39
111 Cummington Street, Boston

Tea: 3:45pm in Room B24

Abstract: Tropical geometry is a piecewise linear shadow of algebraic geometry. Mikhalkin proved a tropical correspondence theorem for counts of rational curves on toric varieties with point conditions, later generalized by Nishinou-Siebert using degeneration methods. After briefly describing this correspondence, I will explain a generalization to the non-toric case of the log Calabi-Yau pair (\mathbb{P}^2, E) . The counts to consider are logarithmic Gromov-Witten invariants on \mathbb{P}^2 with maximal tangency with the elliptic curve E at a single point. They correspond to functions attached to unbounded walls in the consistent wall structure arising in the fan picture of (\mathbb{P}^2, E) from the Gross-Siebert reconstruction algorithm.

See <http://math.bu.edu/research/geom/seminar.html> or contact Yu-Shen Lin (yslin@bu.edu) or Siu-Cheong Lau (lau@math.bu.edu) for more information.