1176-14-21 **Dawei Chen*** (`dawei.chen@bc.edu`) and **Miguel Prado Godoy** (`pradogod@bc.edu`). *Residues of differentials and intersection theory on moduli spaces.*

Consider meromorphic differentials on the Riemann sphere with a unique zero and fixed orders of poles. How many such differentials satisfy that the residue at each pole is equal to a given value? This question was studied by Gendron and Tahar via counting graphs that arise from the flat geometry of differentials. In this talk we introduce a different method to study this question by using intersection theory on the moduli space of pointed rational curves. (Received December 28, 2021)