

19w5226 Poster Title and abstract - Jeremy Eng

Title: Linking Probabilities in a Confined Polymer System

Abstract: Self-avoiding polygons are the standard lattice model for ring polymers in dilute solution. Here, systems consisting of two confined ring polymers are modelled by two mutually self-avoiding polygons (2SAPs), restricted to a lattice tube. Linking probabilities of these 2SAPs are examined by applying transfer matrix techniques. For small 2SAPs, linking numbers are calculated and 2SAPs are generated to determine exact linking probabilities. These exact results for small 2SAPs provide some evidence for the asymptotics of the linking probability of 2SAPs.