Meeting: 998, Houston, Texas, SS 7A, Special Session on Low Dimensional Topology

998-57-420 Mario Eudave-Muñoz (mario@math.unam.mx), Ciudad Universitaria, 04510 Mexico, D.F., Mexico, and Max Neumann-Coto* (max@math.unam.mx), Ciudad Universitaria, 04510 Mexico, D.F., Mexico. Bounds for the genus and number of acylindrical surfaces in knot and link exteriors. Preliminary report.

We give bounds for the genus of acylindrical surfaces in the exterior of a link (or knot) k in terms of the number of rational (or alternating) tangles in a projection of k. We show that the number of disjoint acylindrical and pairwise acylindrical surfaces in a link exterior is bounded in terms of its bridge number. (Received March 02, 2004)