

1011-05-312 **Thomas Albertson*** (talberts@csulb.edu). *Twist Number for Graphs*. Preliminary report.

The twist number of a link is the minimum number of integral tangles taken over all projections of the link. Given a plane graph associated with the checkerboard coloring of a link diagram, we define the twist number of that graph as the twist number of the link. We show that the twist number of any planar multi-graph is determined by the Tutte polynomial. Then we extend the definition of twist number to non-planar graphs. We give an algorithm for finding the twist number of a graph, which tells us what the twist number counts in a graph. (Research carried out at an REU at California State University, San Bernardino.) (Received August 30, 2005)