

1023-57-113

**Timothy D Comar\*** (tcomar@ben.edu), 5700 College RD, Lisle, IL 60532, and **Debra Witczak**, 5700 College RD, Lisle, IL 60532. *Upper Bounds for Regular Stick Numbers of Torus Knots*. Preliminary report.

Let  $K$  be a topological knot or link. An  $\alpha$ -regular conformation of  $K$  is a polygonal embedding of  $K$  in three-space such that each edge (stick) has the same length and adjacent sticks meet at an angle of  $\alpha$ . The  $\alpha$ -regular stick number of  $K$ ,  $S_\alpha(K)$ , is the minimal number sticks needed to form an  $\alpha$ -regular conformation of  $K$  in space. We describe a recipe for constructing  $\alpha$ -regular conformations of torus knots and links for any  $\alpha \in (0, \pi)$ . This construction utilizes braid representations and provides upper bounds for  $\alpha$ -regular stick numbers of torus knots and links, which are in general not sharp. We will also indicate how to extend this method for any knot or link. (Received July 31, 2006)