

1096-54-1655

**Erik A Insko\*** (einsko@fgcu.edu) and **Rolland Trapp** (rtrapp@csusb.edu). *Supercoiled  
Tangles and Stick Numbers of 2-Bridge Links.*

Utilizing both twisting and writhing, we construct integral tangles with few sticks, leading to an efficient method for constructing polygonal 2-bridge links. Let  $L$  be a two bridge link with crossing number  $c$ , stick number  $s$ , and  $n$  tangles. It is shown that  $s \leq \frac{2}{3}c + 2n + 3$ . We also show that if  $c > 12n + 3$ , then minimal stick representatives do not admit minimal crossing projections. (Received September 16, 2013)