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

998-57-338 **Martin Scharlemann*** (mgscharl@math.ucsb.edu) and **Abigail Thompson** (thompson@math.ucdavis.edu). *Knot width is unlikely to be nearly additive.* Preliminary report.

For K a knot in the 3-sphere, let $w(K)$ denote the width of K. It has been conjectured that $w(K\#K') = w(K)+w(K')-2$. This conjecture has been verified by Rieck and Sedgwick for small knots and is motivated by Schubert's celebrated similar result on bridge number. We exhibit a family of knots whose typical member K appears to have the property that, for K' any 2-bridge knot, $w(K\#K') = w(K)$. The construction of K is not particularly delicate and its general nature strongly suggests that the conjecture must be false. (Received March 01, 2004)