Scott A Taylor*, 5832 Mayflower Hill Road, Colby College, Waterville, ME 04901. The bridge number of knots and links which differ from a split link by a rational tangle replacement.

All but the most trivial rational tangle replacements on a split link produce a knot or link which is neither the unknot nor a split link. It is known that (usually) the genus of the knot or link produced increases as the distance of the rational tangle replacement increases. It is interesting to investigate what happens to other geometrically defined knot invariants as the distance increases. An understanding of what happens to the bridge number of the knot or link is beginning to emerge. The talk will describe the conjectural picture and present a few partial results. (Received September 15, 2008)