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R Trapp* (rtrapp@csusb.edu), Department of Mathematics, 5500 University Pkwy, San Bernardino, CA 92373, and **S. Sadjadi, J. Alley** and **C. Mathes**. *On the Ropelength of Alternating Conformations*. Preliminary report.

It has been conjectured that the ropelength of alternating knots is at least linear in the crossing number. We show that for alternating conformations this is the case. One consequence is the fact that if the ropelength of an alternating knot is less than four times its crossing number, then minimizing conformations do not admit alternating projections. We then introduce the notion of a paired conformation, and extend the results to paired and almost-paired conformations. (Received February 15, 2010)