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**Eric J Rawdon\*** (ejrawdon@stthomas.edu), Department of Mathematics, University of Saint Thomas, 2115 Summit Ave, Saint Paul, MN 55105. *Size and Shape of Knotted Polymers.*

We use numerical simulations to investigate how the chain length and topology of freely fluctuating knotted polymer rings affect their size and shape. In particular, we analyze different types of geometric containers that envelope polymer configurations and describe the similarities and differences between them. This work has been done in collaborations with Akos Dobay, John Kern, Kenneth Millett, Michael Piatek, Patrick Plunkett, and Andrzej Stasiak. (Received August 11, 2008)