1099-82-67   **Esaias J Janse van Rensburg*** (`rensburg@yorku.ca`), Mathematics and Statistics, York
University, 4700 Keele street, Toronto, Ontario M3J 1P3, Canada. *Modelling the Entropic Pressure
near a Knotted Ring Polymer.*

The entropic pressure in the vicinity of a ring polymer in a good solvent can be modelled by lattice polygons in the cubic
lattice. In this talk I will explain the Monte Carlo sampling of knotted lattice polygons. The results of these simulations
can be used to make numerical estimates of the entropic pressure close to the polygon. A scaling analysis will be presented
for the pressure, and tested against the numerical results. In addition, the effect of the knot type on the entropic pressure
will be examined. (Received January 24, 2014)