1104-82-263 **Christine Soteros*** (soteros@math.usask.ca). *Lattice Polygon Models of Polymer and Biopolymer Entanglements.* Preliminary report.

We have been using self-avoiding lattice polygons to investigate entanglement measures such as knotting probabilities and knot-transition probabilities for models of polymers and biopolymers. One goal of these studies is to characterize how a given entanglement measure changes with polygon size and how it is affected by other system properties such as geometrical confinement and/or solvent quality. A better understanding and characterization of these effects is expected to lead to an improved understanding of, for example, DNA confined to a viral capsid and/or DNA-enzyme interactions. Recent progress has been made both theoretically and numerically with respect to the effect of confinement on knot probabilities and the effect of salt concentration on knot-transition probabilities. I will review overall progress and highlight some recent results. (Received September 02, 2014)