1041-62-222   **Michael L Szafron*** (`szafron@math.usask.ca`), 106 Wiggins Road, Saskatoon, SK S7N5E6, Canada, and **Christine E Soteros**. *The Probability of Knotting after a Local Strand Passage in a SAP with knot-type K in $\mathbb{Z}^3$.* Preliminary report.

Whether strand passages are implemented at random locations in DNA is a problem which has sparked much interest in molecular biology. The simplified model of a ring polymer that was designed to study this problem will be reviewed. Some final results involving the probability that a ring polymer with knot-type K has knot-type K' after a local strand passage has occurred within the ring polymer will also be presented. (Received August 11, 2008)