1041-60-146   **Alexander Y Grosberg***, 4 Washington Place, New York, NY 10003. *How smooth is smooth enough?*

There are certain properties of knots in macromolecules which are expected for the specific case of worm-like polymer, with smoothly distributed curvature, and are not expected for polymers of rigid sticks with joints. How can we simulate worm-like behavior on a computer, given that every model is by necessity discrete? We analyze the degree of permissible coarse graining for the purpose of knot simulation. (Received August 08, 2008)