

CONFORMATIONAL  
PROPERTIES OF SEMIFLEXIBLE  
POLYMERS: NUMERICAL SIMULATIONS

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S u m m a r y

We study the conformational properties of semiflexible polymers within the lattice model of self-avoiding random walks (SAW) with bending energy  $\varepsilon$  that depends on the orientation between directions of two consecutive steps. We apply the pruned-enriched Rosenbluth method (PERM). Both the cases of bending preference ( $\varepsilon < 0$ ) and unfavorableness ( $\varepsilon > 0$ ) are analyzed, and details of the “coil-to-rod” transition, as well as properties of the “superflexible” state, are discussed.