Quantifying and Minimizing Lattice Anisotropy QIANG WANG,
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We have quantified the anisotropy of various lattice models used in polymer simula-
tions based on two quantities: the Fourier transform of the normalized Boltzmann
factor of allowable bonds on a lattice (which is the central quantity for describing
lattice chain conformations), and the bulk lamellar period at the mean-field order-
disorder transition of symmetric diblock copolymers on a lattice (which is pertinent
to the study of microphase separation). This allowed us to compare the anisotropy
of different lattices and to design new lattice models that minimize the quantified
anisotropy.

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