An Integral Equation Coarse-graining Method for Polymer Blends[1] MOHAMMADHASAN DINPAJOOH, MARINA GUENZA, University of Oregon — We use the variable-level coarse-grained description of polymer melts and the polymer reference interaction site model formalism to study binary polymer blends. In this description, each polymer chain is represented by a single soft sphere or as a collection of multi-blob soft connected blobs. The relation between the center of mass of blobs and real monomer sites is derived by solving a generalized Ornstein Zernike equation. We address the necessity of using an appropriate molecular closure for polymer blends in this formalism.

Mohammadhasan Dinpajooh
University of Oregon

Date submitted: 05 May 2017   Electronic form version 1.4