

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Report on NSF Workshop on Challenges and Opportunities of Polymer and Soft Matter Theory and Simulation MONICA OLVERA DE LA CRUZ, Northwestern University — At this Town Hall the report of the workshop on “Opportunities in Theoretical and Computational Polymeric Materials and Soft Matter” that was held at the University of California, Santa Barbara in October 2013 will be presented by four of the workshop organizers (Gary Grest, Andrea Liu, Monica Olvera de la Cruz, and Michael Rubinstein). The presentations will be followed by a panel discussion. The workshop (i) identified the major theoretical and computational challenges and opportunities relating to the first-principles design of broad classes of soft materials and polymers; (ii) identified the missing tools/methods necessary to address these challenges and the steps required to develop the methods; (iii) constructed a vision for how theory, computation, and experiment can interact synergistically to discover new materials; and (iv) elaborated the theoretical advances and cyber infrastructure needed to enable more effective synergistic interaction.

Monica Olvera de la Cruz
Northwestern University

Date submitted: 22 Nov 2013

Electronic form version 1.4