Behnaz Bozorgui
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Host: Elizabeth Podlaha-Murphy
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"Simulation of Polymer-grafted Nanoparticles"

Friday, May 2
220 Behrakis (BK)
11:45 am – 1:00 pm

Refreshments will be served

ABSTRACT
I use computer simulations to design and model molecular self--assembly. Here, I present studies that rationalize recent experimental observations such as formation of anisotropic clustering in grafted nanoparticles, and a vapor--liquid transition seen in colloids covered by DNA strands with sticky ends. I discuss new computational methods and design rules that are developed for this purpose and the challenges and rewards of computational simulation.

BIOGRAPHY
Dr. Behnaz Bozorgui received her B.S. in physics from Sharif University of Technology in Tehran, Iran, and her M.S. in Physics from IASBS in Zanjan, Iran. She completed her PhD in computational physical chemistry at AMOLF institute in Amsterdam, The Netherlands, followed by postdoctoral research at both chemistry and chemical engineering department at Columbia University. Dr. Bozorgui research interests lie in developing simulation techniques to study material self--assembly, and modeling of hybrid materials.