

**CORE-CM SEMINAR**  
**Michigan State University**

**David Waldeck**  
**University of Pittsburgh**

**Directing Charge Transfer in Semiconductor Nanoparticle  
Assemblies**

Nanoparticle devices promise to provide a systematic and modular approach to creating supramolecular assemblies of linked nanoparticles that function as charge transfer elements. I will describe recent work in which we explore how to engineer nanoparticle/nanoparticle interfaces and nanoparticle/conjugated polymer interfaces to enhance charge separation and inhibit charge recombination. Particular foci of our effort are aimed at understanding the importance of energy-level gradients, built-in electrostatic potentials, and symmetry/chirality properties.

**Thursday, March 23, 2017**  
**12:00 NOON**  
**Room 1400 – Biomedical & Physical Sciences**  
**Jim McCusker - Host**