

# Colloquium

Department of Mathematics  
And  
Department of Physics  
Michigan Technological University

Monday, July 22, 2013  
at 11:00 am  
Room 125 Fisher Hall

## Play-doh and Packing

Elizabeth Chen  
Department of Applied Mathematics  
Harvard University

Play with Play-doh and see Pretty Pictures of Packing: We will begin with a brief story of tetrahedron packing, and then we will generalize to families of polyhedra with symmetry groups 323, 423, 523. Intersection equations, Minkowski lattices, and regions and boundaries of phase diagram will be discussed. Sphinx particles (intersections of signed balls) will be introduced with a discussion of the overlap algorithm from spheres in n dimensions.

**Bio:** Dr. Chen is a MatheMagician with NSF postdoc research fellowship at Harvard. She received her PhD from the University of Michigan with a certificate in Women's Studies.