

## Multiple Ph.D. positions in Mechanics of Soft Materials

The recently founded Group of Applied mechanics in Department of Civil & Environmental Engineering at Michigan State University has a few openings for PhD positions to work on Multi-scale Modeling of Soft Materials starting fall 2014.

One research direction is modeling of bio-materials, with combined theoretical and experimental efforts. Highly Stretchable/Flexible gels combines the properties of the water based gels as a scaffold for tissue regeneration and mechanical properties of a polymer based composites, and thus do have a very broad biological applications. Examples range from surgical and diagnostic layers that placed over the skin to accelerate the healing procedure to replacement tissues.

Another one is mechanics of nan-composites, to study the hysteresis and deformation of aggregated nano-structures in colloidal composites to preict the macro-scale behavior of the composites. This project will utilize both analytical and numerical methods to reveal the fundamental mechanics and physics in nano-aggregated composites.

Required qualifications for the positions are as follow

- A M.Sc. or equivalent degree in Mechanics, Civil, Material or related engineering disciplines.
- Strong background in Solid & Computational Mechanics; Constitutive Modeling, Finite element.
- Proficiency in FORTRAN, MAPLE, and preferably, Ansys or Abaqus.
- Proficiency in English

Prior experience in multi-scale modeling, MD Simulation, and large scale computation is a plus. The position is available starting immediately until filled.

Interested candidates are encouraged to send a cover letter, CV, representative publications (if any) and names and contact information for two references to:

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