

ACMS Applied Math Seminar

ZHANGLI PENG

**Wed, Oct 15
129 Hayes-Healy
3:00 PM**



Multiscale Modeling in Cell/Tissue Mechanics and Related Diseases

Molecular mutations can lead to altered mechanical properties and malfunction of cells and tissues. However, it is a grand computational challenge to bridge the scales from molecules to cells and tissues. In this seminar, I will show examples of applying multiscale modeling to investigate biomechanics problems from molecular level to tissue level, such as malaria, hereditary blood disorder, circulating tumor cells and vascular diseases. The findings from these problems have only become possible due to the multiscale modeling technique and the state-of-the-art understanding of molecular structures, and promise a new avenue to study the mechanics of biological systems.

The Department of Applied and Computational
Mathematics and Statistics

Please visit acms.nd.edu to view the full list of speakers.