



Seminars in Mechanical & Industrial Engineering

Invited Lecture

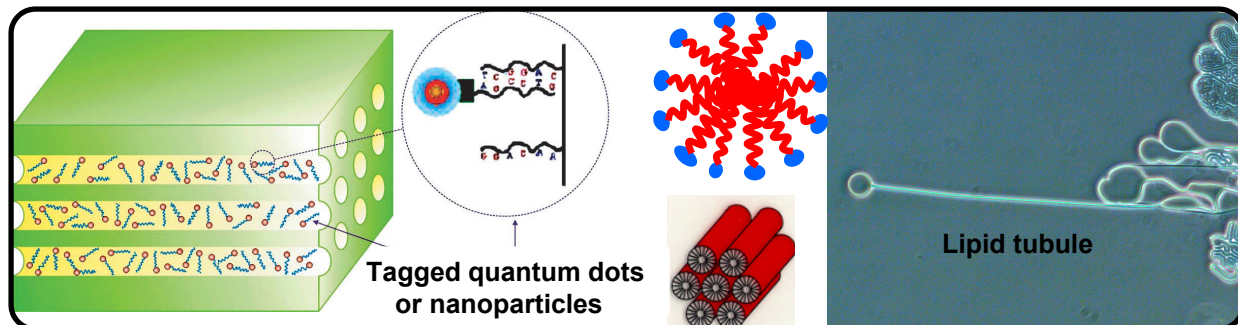
Friday, October 2 · 2:10PM · Room MC102
5 King's College Road

Complex Fluids Under Confinement and Flow

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Abstract. There has been tremendous interest in complex fluids and the processing of these fascinating materials to create morphologies and structures that can find application in the nanotechnology, biotechnology, microelectronics, and energy related materials. Within this broad area, my laboratory takes advantage of the coupling of complex fluid microstructures with the spatial confinement that is possible by using microfluidic flow methods, to offer exquisite morphological control of soft materials. In this talk, I will choose three model systems to illustrate the idea. First, I will focus on a micellar solution system that yields a novel route to synthesizing bio-compatible nanoporous sol-gels. Second, I will demonstrate how confinement and flow can modify the self-assembly of supramolecular hydrogels and their subsequent thermal properties. The third example shows the biocompatible lipid tubule formation via confinement.



All visitors are welcome!

To receive seminar invitations please send an email to seminars@mie.utoronto.ca

The next seminar will take place on Oct 16 at 2:10pm in MC102. Professor Robert Howe from Harvard University will talk about “Fixing the Beating Heart: Ultrasound Guidance for Robotic Intracardiac Surgery”.