Mathematical Cell Biology Graduate Summer Course
University of British Columbia, May 1-31, 2012

Leah Edelstein-Keshet

Guest lecturers: Dimitrios Vavylonis, Jun Allard,
William R. Holmes, Raibatak (Dodo) Das and UBC faculty

Topics include:

- Pattern formation and signaling
- Microscopy methods and biological data analysis
- Biopolymers assembly, kinetics, and mechanics
- Buckling, bending, stretching, twisting.
- Molecular motors
- Mechanics of cell motility and cell division
- Bacterial chemotaxis
- Motility of animal cells and cell shape
- Continuum, discrete, and simulation models

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PIMS

This will be taught as an online course, with web-based material, archived and live lectures and interactive discussion sessions. Interested students can take (Math 563) for credit at UBC (or at affiliated western universities under the Western Dean's agreement).

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