RUSTUM CHOKSI, Simon Fraser University

On Certain Parameter Regimes of the Phase Diagram for Microphase Separation of Diblock Copolymers

In this talk I will discuss the phase diagram associated with a nonlocal functional and modified Cahn–Hilliard equation which model microphase separation of diblock copolymers I will present recent results on the relevant parameter regimes via a combination of rigorous analysis (Gamma-convergence), asymptotic analysis, and numerics.

This is joint work with M. A. Peletier (TU, Eindhoven), M. Maras (SFU), J. F. Williams (SFU).

For the regime of small volume fraction, I will also discuss coarsening dynamics via a modified LSW (Lifshitz, Slyozov, Wagner) theory.

This is joint work with K. Glasner (Arizona).