



Monday, 6th of December, 4:30 p.m.
ICAMS Seminar room UHW 11/1102

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Phase-separation fronts in binary mixtures: simulations and analytical solutions

I present a simple model for Phase-Separation fronts induced by a sharp control-parameter front (e.g. an abrupt jump in the temperature). We examined the morphologies formed in the wake of such a front which moves with some prescribed velocity. When this velocity is a constant in time we find very regular, non-equilibrium structures which are oriented either parallel or orthogonal to the imposed front. The main parameters for the morphology formation are volume fraction and front speed. I will present some analytical predictions on the form and size of these structures and validated these predictions with simulations.