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DK Seminar

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Diffusion of multiple species with excluded-volume effects

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10:00 - 11:00

TU Wien, 'Freihaus', green area, 3rd floor, SEM 101B

Abstract: We study a cross-diffusion system describing the evolution of two distinct populations of particles. The population-level model is derived systematically from an individual-based model consisting of impenetrable diffusing spheres. In this talk, I will outline the derivation of the cross-diffusion model, discuss some of its features such as the gradient-flow structure, and show numerical results comparing the discrete stochastic system to the derived model.