Phase field method for mean curvature flow with obstacles

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In this talk, we show the global existence of Brakke's mean curvature flow with obstacles and with a right-angle condition, when the obstacles have $C^{1,1}$ boundaries. We use the Allen-Cahn equation with forcing term representing obstacles and we prove the convergence of the Radon measures given by the energy of the equation to Brakke's mean curvature flow in the sense of varifolds. This talk is based on a joint work with Katerina Nik (TU Delft).