

Energy convergence of the Allen-Cahn equation to mean convex mean curvature flow

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In this talk, I'll present a work in progress in which I positively answer a question of Ilmanen (JDG 1993) on the strong convergence of the Allen-Cahn equation to mean curvature flow when starting from well-prepared initial conditions around a mean convex surface. As a corollary, the conditional convergence result with Simon (CPAM 2018) becomes unconditional in the mean convex case.