



Analysis Seminar

Title: Singularities in Mean Curvature Flows

Speaker: Maxwell Stolarski

Date: Tue 6th October 2026 at 3:00PM

Location: N0.20 - Science North

Abstract: Mean curvature flows generally develop finite-time singularities. A key question for applications is then to understand when exactly singularities form. Although the 2nd fundamental form detects singularity times, its trace cannot. Indeed, we'll show that, in high dimensions, there are mean curvature flows that develop finite-time singularities while the mean curvature remains uniformly bounded. The proof combines Liouville theorems with a blow-up argument to extend estimates away from the singularity up to the singularity. We'll then discuss recent related results for Lagrangian mean curvature flows in low dimensions (joint with Wei-Bo Su) and some open problems.

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