SFB-Seminar (Research Project C8)

TIME:
14 Apr 2015, 15:00 - 18:00

LOCATION:
FU Berlin
Konrad-Zuse-Zentrum für Informationstechnik, Hörsaal ZIB
Takustr. 7
14195 Berlin-Dahlem

PROGRAM:

15:00 - 15:30 Coffee Break

15:30 - 16:30 **Dr. Ananda Lahiri (AEI)**

Maintaining graphical representation for mean curvature flow
We consider a family of hypersurfaces in Euclidean space that moves by mean curvature flow. Suppose the initial surface is graphical inside a cylinder. By continuity in time it is clear that the flow will remain graphical inside the cylinder of half the radius for a period of time. Here we will show a lower bound on the length of this time period, depending only on the initial graphical representation.

16:30 - 17:00 Coffee Break

17:00 - 18:00 **PD Dr. Stefan Liebscher (FU Berlin)**

Meanders, or how to count Jordan curves
Meanders are the configurations which arise when one or several disjoint closed Jordan curves in the plane transversely intersect a given line. They play a crucial role in the classification of global attractors of dissipative parabolic PDEs in one space dimension and have a reinterpretation as elements of Temperley-Lieb algebras and Cartesian billiards.
We will explore this correspondence and introduce alternative

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representations of meanders. This naturally leads to questions concerning closed formulae for the number of connected components of the meander, also related to the trace of a Temperley-Lieb element.
Depending on the point of view, there are negative and positive answers.

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