



## SFB-Seminar (Teilprojekt C8)

### ZEIT:

14.4.2015, 15:00 Uhr - 18:00 Uhr

### ORT:

FU Berlin

Konrad-Zuse-Zentrum für Informationstechnik, Hörsaal ZIB

Takustr. 7

14195 Berlin-Dahlem

### PROGRAMM:

15:00 - 15:30 Kaffee Pause

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 Kaffee Pause

17:00 - 18:00 **PD Dr. Stefan Liescher (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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