



## SFB Colloquium

### TIME:

3 Dec 2007, 15:00 - 18:00

### LOCATION:

HU-Berlin  
Invalidenstraße 42  
Nordbau, Hörsaal 8  
10115 Berlin

### PROGRAM:

15:00 - 16:00 **PD Dr. Priska Jahnke (Universität Bayreuth)**

#### **The classification of Fano varieties - and some number mysticism**

A compact complex manifold is called Fano if its Ricci curvature is positive. As end products of the so called minimal model program, Fano varieties play a central role in algebraic geometry. Their classification is an ongoing project, in particular in the singular case there are still many open questions. In the talk I will try to give an overview on results and open problems.

If a Fano manifold can be anticanonically embedded, then a general hyperplane section is a Calabi-Yau manifold. In dimension three, Fano classification gives a complete answer to the question which Calabi-Yau surfaces arise in this way. Can this question also be answered by mirror symmetry?

16:00 - 16:30 Coffee Break

16:30 - 17:30 **Dr. Oliver Schnürer (FU Berlin)**

### Contact:

Humboldt-Universität zu Berlin . Institut für Mathematik  
SFB 647 . Unter den Linden 6 . 10099 Berlin  
Tel. +49 30 2093 1804 . Fax. +49 30 2093 2727  
sfb647@math.hu-berlin.de

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## **Evolution of convex lens-shaped networks under curve shortening flow**

We consider convex symmetric lens-shaped networks in  $\mathbb{R}^2$  that evolve under curve shortening flow. We show that the enclosed convex domain shrinks to a point in finite time. Furthermore, after appropriate rescaling the evolving networks converge to a self-similarly shrinking network, which we prove to be unique in an appropriate class. We also discuss a classification result for some self-similarly shrinking networks.

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