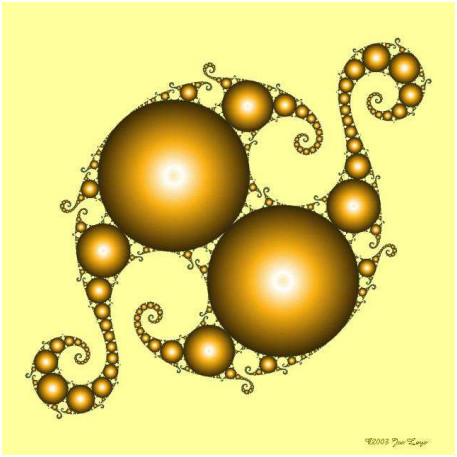
**Oberseminar Geometrie**
Department of Mathematics
University of Fribourg
Seminar room, Lonza dependence
**Wednesday April 6, 2011, 10:20-12:00**



**Thomas Mettler (Berkeley)**:

# Soliton solutions of the mean curvature flow and minimal hypersurfaces

I will start by recalling the mean curvature flow for families of hypersurfaces in a Riemannian manifold and the notion of a soliton solution. A hypersurface gives rise to a soliton solution of the mean curvature flow if and only if it satisfies a certain Monge-Ampere equation which, in special cases, is known to be equivalent to the minimal hypersurface equation for a conformally rescaled metric. I will use the framework of Monge-Ampere exterior differential systems to determine the necessary and sufficient conditions for the soliton equation to be equivalent to a minimal hypersurface equation.

This is joint work with N. Hungerbühler.