

# DIFFERENTIAL GEOMETRY/PDE SEMINAR

WEDNESDAY, OCTOBER 15, 2015

PADELFORD C-36

4PM–5PM

Skew Mean Curvature Flow

**Chong SONG**

(XIAMEN U/UW)

The skew mean curvature flow (SMCF) or binormal flow, which originates from the study of fluid dynamics, describes the evolution of a codimension two submanifold along its binormal direction. In this talk, I will show the basic properties of the SMCF and prove the existence of a short-time solution to the SMCF of surfaces in Euclidean space  $R^4$ . If time permits, I will also talk about a generalized Hasimoto transformation, which transforms the SMCF to a non-linear Schrödinger system.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, [www.math.washington.edu](http://www.math.washington.edu), follow the link **Seminars, Colloquia, and Conferences**).

The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264 (FAX), or [dso@u.washington.edu](mailto:dso@u.washington.edu).