Universität Regensburg

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Zwei-Städte-Kolloquium zur Analysis
Erlangen - Regensburg

Freitag, 22. Juni 2012

Die Vorträge finden im Raum M 103 der Fakultät für Mathematik der Universität Regensburg statt.

15:00 Uhr

Prof. Charlie Elliott, University of Warwick

Surface and interface partial differential equations

I will motivate surface PDEs with some examples from biology (cell motility and phase separation on biomembranes, joint work with Bjorn Stinner and Chandrashekar Venkataraman) and material science (surface dissolution and the formation of nanoporosity, joint work with Carsten Eilks) which couple PDEs on surfaces to the evolution of the surfaces.
I will formulate the evolving surface finite element method for approximating the solution of the diffusion equation on a moving hypersurface and describe the finite element error analysis which yields optimal order bounds for piece-wise linear elements in the semi-discrete and the fully discrete backward Euler schemes. This error analysis is joint work with G. Dziuk.

16:00: Kaffeepause

16:30 Uhr

Prof. Sijue Wu, University of Michigan

Local and global wellposedness of the full water wave problem

Organisatoren:
H. Abels (Regensburg), L. Blank (Regensburg), G. Dolzmann (Regensburg),
F. Finster (Regensburg), H. Garcke (Regensburg), G. Grün (Erlangen)