TU TECHNISCHE UNIVERSITÄT WIEN
Institut für Computergraphik und Algorithmen
Arbeitsbereich für Computergraphik

vrvis zentrum für
virtual reality und visualisierung
forschungs-gmbh

OESTERREICHISCHE COMPUTER GESELLSCHAFT
AUSTRIAN COMPUTER SOCIETY

laden gemeinsam zum

GASTVORTRAG

Holger Theisel
University of Magdeburg, Germany

"Optimal Streamlines and Streamsurfaces for 3D Flow Visualization"

Abstract:

Streamlines and Streamsurfaces are standard tools for the visual analysis of flow data. Nevertheless, their applications still poses challenges concerning their extraction, integration, and visualization.

In the talk, we tackle three problems:
- the selection of suitable stream lines,
- a stable integration of stream surfaces,
- the selection of suitable stream surfaces.

We show that these problems can and should be formulated as global optimization problems. We present the respective error functionals to be minimized and show solutions for several test cases.

Biography:

Prof. Dr. Holger Theisel is a visualization researcher since more that 10 years. After his visiting professorship in 1994 in the USA he became a research assistant at the Computer Science department of the University of Rostock. In 1996 he was awarded his PhD and habilitated in 2001, both in Rostock. After his visiting professorship in Cuba in 2002 he became a PostDoc researcher at the Max-Planck-Institute for Computer Science in Saarbrücken. In 2006 he joined the Computer Graphics department at the University of Bielefeld. Since October 2007 Prof. Theisel leads the working group "Visual Computing" at the Institute of Simulation and Graphics at the University of Magdeburg. In research and teachings the working group deals with different fields of visualization and modeling.

Datum: 23. Mai 2014, 10:30 Uhr s.t.
Ort: TU Wien, Favoritenstr. 9, Stiege 1, 5. Stock, Seminarraum E186