

(Pro-)Seminar Visualization in Computing and Humanities

Presentation of Topics

November 3, 2016

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General Information

- Homepage
http://www.iwr.uni-heidelberg.de/groups/viscomp/teaching/2016-17/sem_vch/
- Goals of this seminar
 - Study of a topic from current research
 - Research of material
 - Initial material is provided (1 paper for Proseminar, 2 papers for Seminar)
 - Secondary literature has to be researched
 - Presentation and discussion of the topics during a block seminar (presumably three dates)
 - Written report

Schedule

- Preliminary discussion (November 3, 2016 – today)
 - Goals and prerequisites
 - Presentation of topics
- To do
 - As soon as possible, preferably before November 7:
Mail to Hubert Mara (hubert.mara@iwr.uni-heidelberg.de) and Filip Sadlo (filip.sadlo@iwr.uni-heidelberg.de):
register for course, provide name, student number, semester, major
 - By November 11, 2016, 23:59:
Choose at least three topic
(Doodle link provided by email)
Important: Mind topics rules for Proseminar and Seminar
- Notification of assignment of topics
 - November 16, 2016
- Presentation (block seminar, preferably in English)
 - Dates will be announced on webpage
 - Proseminar: 15–20 minutes; Seminar: 20–25 minutes; + 5–10 discussion

Schedule

- Written report (deadline will be announced)
 - Proseminar: 10–15 pages (including figures)
 - Seminar: 15–20 pages (including figures)
 - Submission: e-mail
 - Date: after lecture period
- Grade
 - 40% presentation
 - 60% written report

Topics “Computing” (Proseminar Topics)

C1 – Physics-based Visual Characterization of Molecular Interaction Forces

<https://vimeo.com/groups/406869/videos/182970417> [<http://ieeexplore.ieee.org/document/7539331/>]

C2 – Comparing Cross-Sections and 3D Renderings for Surface Matching Tasks using Physical Ground Truths

<https://vimeo.com/groups/406869/videos/182968780> [<http://ieeexplore.ieee.org/document/7539353/>]

C3 – In Situ Distribution Guided Analysis and Visualization of Transonic Jet Engine Simulations

<https://vimeo.com/groups/406869/videos/182970479> [<http://ieeexplore.ieee.org/document/7539561/>]

C4 – A Fractional Cartesian Composition Model for Semi-spatial Comparative Visualization Design

<https://vimeo.com/groups/406869/videos/182970341> [<http://ieeexplore.ieee.org/document/7539573/>]

C5 – Progressive Direct Volume-to-Volume Transformation

<https://vimeo.com/groups/406869/videos/182968610> [<http://ieeexplore.ieee.org/document/7539644/>]

C6 – GlyphLens: View-dependent Occlusion Management in the Interactive Glyph Visualization

<https://vimeo.com/groups/406869/videos/182970372> [<http://ieeexplore.ieee.org/document/7539643/>]

Topics “Computing” (Seminar Topics)

C7 – Molecular Surface Maps

<https://vimeo.com/groups/406869/videos/182974149> [<http://ieeexplore.ieee.org/document/7539285/>]

C8 – Visualizing Shape Deformations with Variation of Geometric Spectrum

<https://vimeo.com/groups/406869/videos/182968746> [<http://ieeexplore.ieee.org/document/7539296/>]

C9 – Jacobi Fiber Surfaces for Bivariate Reeb Space Computation

<https://vimeo.com/groups/406869/videos/182968630> [<http://ieeexplore.ieee.org/document/7539583/>]

C10 – Backward Finite-Time Lyapunov Exponents in Inertial Flows

<https://vimeo.com/groups/406869/videos/182968730> [<http://ieeexplore.ieee.org/document/7539598/>]

C11 – Time-hierarchical Clustering and Visualization of Weather Forecast Ensembles

<https://vimeo.com/groups/406869/videos/182968690> [<http://ieeexplore.ieee.org/document/7539342/>]

C12 – Correlated Photon Mapping for Interactive Global Illumination of Time-Varying Volumetric Data

<https://vimeo.com/groups/406869/videos/182981744> [<http://ieeexplore.ieee.org/document/7534852/>]