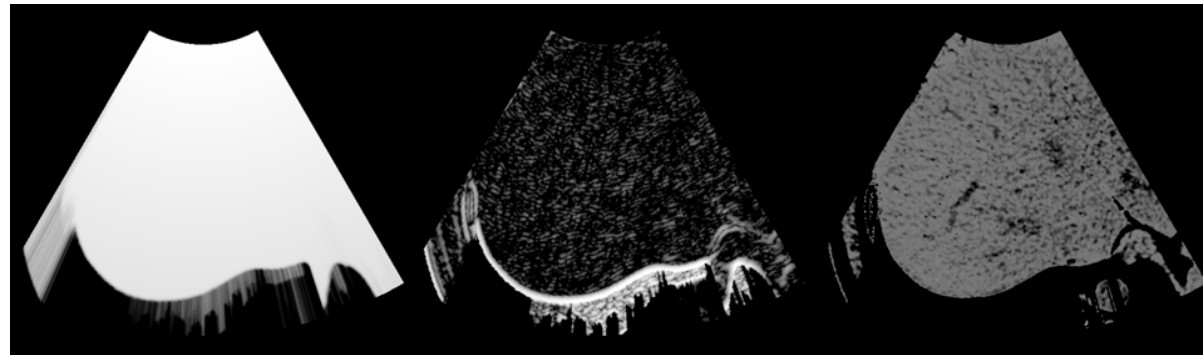
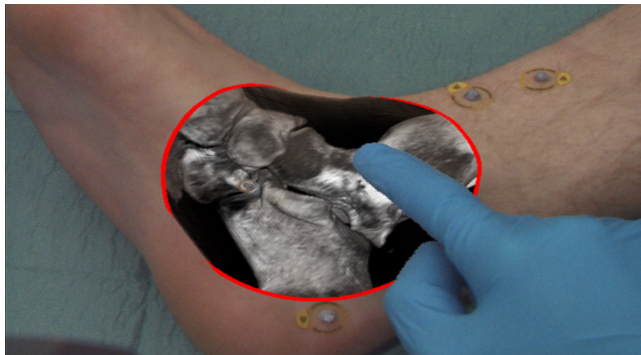




Hauptseminar / Master Seminar Medical Simulation and Training



Goals of the Seminar

Learn how to

- read up on a topic and how to read scientific papers,
- write a scientific paper,
- and present it

Scientific writing

- **Seminar:** Systematically investigate existing scientific literature regarding one specific topic. Summarize and present the most important findings.
- **During your studies (MA/DA):** Understand and discuss existing literature that are related to your own thesis.
- **Scientific publications (Conference / Journals / Workshops):** Present your own research and contribution to other researchers

Important Dates

- 19 January 2009 Tutorial and workshop proposals
- 16 February 2009 Acceptance of tutorials and workshops
- **8 March 2009 Submission of full papers**
- 1 May 2009 Rebuttal of reviews
- 18 May 2009 Acceptance of papers
- 15 June 2009 Camera ready copy for papers
- 20-24 September 2009 Tutorials, Conference, Workshops

- **Hundreds of conferences and journals on different topics**
- **Exchange of knowledge, make contacts, make yourself a name, confirmation, validation**

Topics

Topics to be addressed in MICCAI 2009 include, but are not limited to:

- **Medical Image Computing**
 - functional and diffusion image analysis
 - segmentation
 - physical and functional modeling (bio-mechanical, CFD, etc)
 - shape analysis, atlases and statistical models
 - registration, data fusion and multiscale analysis
- **Computer Assisted Interventions and Robotics**
 - planning and image guidance of interventions
 - simulation & training systems
 - platforms, clinical evaluation of systems and safety issues
 - visualization and feedback (AR, VR, telepresence)
 - robotics and human-robot interaction
- **Biomedical/clinical Applications, Preclinical Imaging and Biomarkers**
 - computer-aided diagnosis
 - organ/system specific applications (including but not limited to neurosciences, oncology, orthopaedics, cardiovascular)
 - molecular and optical imaging
 - imaging biomarkers

Related conferences / journals

- IEEE Computer Graphics and Applications
- IEEE Transactions on Visualization and Computer Graphics
- Medical Image Computing and Computer Assisted Intervention
- Medicine Meets Virtual Reality
- Medical Image Analysis
- SPIE Medical Imaging
- IEEE Transaction on Information Technology in Biomedicine
- Computer Aided Surgery
- Computer Assisted Radiology and Surgery
- Studies in Health Technology and Informatics

Structure of a scientific publication

- **Abstract:** This is the part that will be read most often. Has to arouse interest in the reader. Usually the abstract is freely available.
- **Introduction:** Motivation and related work.
- **Materials and Methods:** Exact presentation of the material (Data, soft- and hardware, survey) and of the methods.
- **Results:** Usually quantitative values.
- **Discussion:** Conclusions, problems, future work and a summary.
- **Reference:** Related work and literature that is important to understand the paper. Everything that has been used to obtain the own results.

Access to scientific publications

- Access to the most publications is not free
- Many publications can be access for free using the TUM-proxy
- Some places to look for publications:
 - Google Scholar <http://scholar.google.de>
 - Citeseer <http://citeseer.ist.psu.edu/>
 - Elektronische Zeitschriftenbibliothek
<http://rzblx1.uni-regensburg.de/ezeit/>
 - **Our library!**
Books and electronic media...
Link to instructions how to access/download electronic media:
<http://www.biblio.tu-muenchen.de/medien/emedien.html>
Link to access/download media outside of the campus:
<http://www.lrz-muenchen.de/services/netzdienste/proxy/documentweb/>

Schein requirements

- Give a presentation (30-45minutes)
- Write a handout (about 10 pages, don't copy and paste!)
- Discuss the handout and presentation with your supervisor (at least one week before your presentation)
- Attendance of the seminar meetings

L^AT_EX

- Typesetting system
- Widely used in academia
- Editors like TeXnicCenter

Topic and Supervisor Distribution

Vorname	Name	Thema	Supervisor
Barbara	Köhler	Modeling of surgical cases	Ahmad
Chen	Yuxiang	History of surgical simulation	Ahmad
Lin	Tong	Existing software frameworks for simulation	Tobias
Benoit	Diotte	Virtual Reality vs. Augmented Reality	Tobias
Benjamin	Lerchenmueller	Hardware for surgical simulation	Ahmad
Dominic	Schikor	Psychology of Learning	Tobias
Christian	Wiesner	How effective is surgical simulation for training?	Tobias
Steffen	Fuhrmann	How to validate a simulator	Tobias
Timo	Nagl	The effect of feedback in training	Tobias
Maximilian	Springer	Patient specific simulation for planning of surgeries	Ahmad
I-Feng	Lin	Force feedback devices: Hardware and modeling of soft tissue	Tobias
Yury	Oleynik	Workflow	Ahmad
Klaus-Benedikt	Schultis	Bronchoscope Tracking	Tobias
Rui	Zou	Simulation of medical images	Christian

Open Issues

- Dates for final presentations
- 5 days, Tuesdays

Tue., 9. June 09
Tue., 23. June 09
Tue., 30. June 09
Tue., 7. July 09
Tue., 14. July 09

Motivational Video

Video about INM
(External)