Welcome!!

Boston CIBC Workshop 2009
Northeastern University
January 18 and 19 2009

CIBC
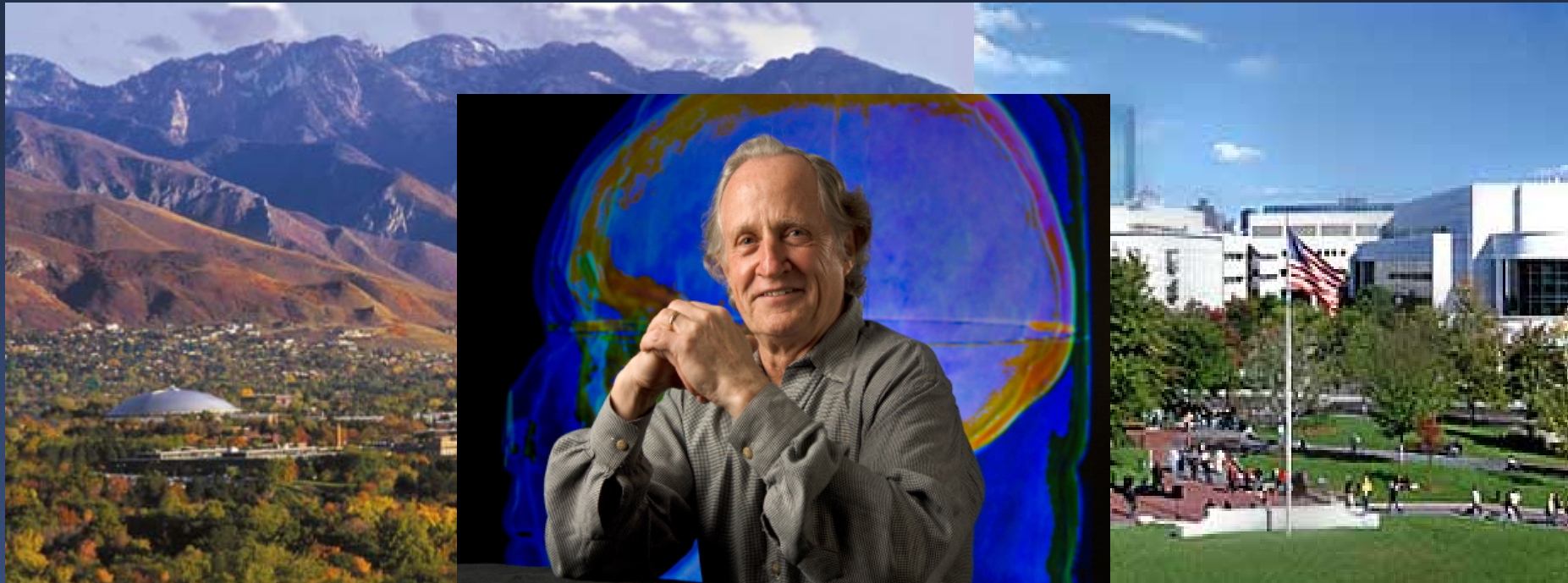
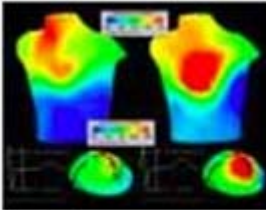## Center for Integrative Biomedical Computing

Goals

- **Produce cutting edge software for biomedical researchers**

- **Develop new techniques and algorithms in image processing, geometric modeling, simulation and visualization**

- **Carry out original research in segmentation, bioelectric field simulation, and visualization**

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Software from the Center

SCIRun
Download
Overview
Documentation

SCIRun is a Problem Solving Environment (PSE), for simulation, modeling, and visualization of

Seg3D
Download
Overview
Documentation

Seg3D is an open source interactive segmentation tool that mixes powerful ITK

map3d
Download
Overview
Documentation
Datasets

map3d is a scientific visualization application written to display and edit complex, three-dimensional geometric models and scalar, time-based data associated with those models.

Teem
Download Teem From Sourc

Teem is a collection of libraries written by Gordon

ImageVis3D
Beta 0.02

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Purpose of the Workshop

Describe our software

Use our software

Improve our software

Develop relationships

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Boston Workshop Personnel

PI
- Dana Brooks

Workshop Leader / Staff Scientist
- Jeroen Stinstra

Developer Team
- Ayla Khan
- Tom Fogal

PhD Student Teaching Assistants
- Burak Erem
- Sila Kurogol

Workshop Logistics

Schedule Today

Sunday, 18th January (Seg3D/ImageVis3D workshop):	
1:00 - 1:10	Introduction (Dana Brooks)
1:10 - 1:40	**Segmentation overview** (Dana Brooks)
1:40 - 2:10	**Demo Seg3D** (Jeroen Stinstra)
2:10 - 2:30	- Break -
2:30 - 3:00	**Seg3D Tutorial** (Jeroen Stinstra, Ayla Khan)
3:00 - 3:40	**ImageVis3D** (Tom Fogal)
3:40 - 6:00	**ImageVis3D Tutorial** (Tom Fogal)

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Schedule Tomorrow

Monday, 19th January (SCIRun workshop):	
9:00 - 9:30	**Overview CIBC Center & Software Download** (Dana Brooks & Ayla Khan)
9:30 - 10:00	**SCIRun Basics Part 1** (Jeroen Stinstra)
10:00 - 10:20	**SCIRun Lab 1** (Ayla Khan)
10:20 - 10:40	- Break -
10:40 - 11:10	**SCIRun Basics Part 2** (Jeroen Stinstra)
11:10 - 12:00	**SCIRun Lab 2** (Ayla Khan)
12:00 - 1:00	- Lunch Break -
1:00 - 2:00	**SCIRun: Creating a model in SCIRun** (Jeroen Stinstra)
2:00 - 2:20	- Break -
2:20 - 4:00	**SCIRun Lab 3** (Jeroen Stinstra & Ayla Khan)

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Workshop Dinner Plans

Group Dinner to be Organized for Interested Participants

Let us know if you want to join us

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2009 IEEE International Symposium on Biomedical Imaging: From Nano to Macro

June 28 – July 1, 2009
Boston, Massachussetts, U.S.A.

IEEE
Celebrating 125 Years
of Engineering the Future

IEEE Signal Processing Society

EMB

The Sixth IEEE International Symposium on Biomedical Imaging (ISBI'09) will be held June 28 - July 1, 2009 in Boston, Massachusetts, U.S.A.. ISBI is widely recognized as the preeminent international forum for the presentation of leading-edge research in the biomedical imaging field. The symposium supports a tradition of cross-fertilization between different imaging communities an integrative approach across all observation scales.

Latest Information

Call for Papers: **Extension of submission deadline to January 26, 2009.** No further extensions are possible.

Deadline for 4-page paper is ~~January 19, 2009~~ January 26, 2009, Midnight at UTC -12 hours.

NEW! Special Workshops

Don't miss these special learning opportunities!

Current and Future Challenges in Clinical Imaging
This workshop will feature three world-renowned clinicians from Massachusetts General Hospital and Harvard Medical School who will discuss biomedical imaging challenges confronting clinical research and patient care:

- Cardiac imaging, Thomas J. Brady, MD
- Brain imaging, A. Gregory Sorensen, MD.
- Breast imaging, Dan Kopans, MD.

Large multi-institutional programs
More details soon!

NEW! Plenary Speakers

Potential and Possibilities: From the Very Critical to the Very Difficult
Thomas Miller
Chief Executive Officer, Workflow and Solutions Division
Siemens Healthcare

Advances in Molecular Imaging
Ralph Weissleder
Director, Center for Molecular Imaging Research
Director, Center for Systems Biology
Massachusetts General Hospital and Harvard Medical School

Nanoscopic Imaging of Biomolecules, Cells and Tissues
Xiaowei Zhuang
Professor of Chemistry and Chemical Biology
Professor of Physics
Harvard University

NEW! Special Sessions

- Statistical methods in neuroimage analysis
- Computational and visualization challenges in virtual colonoscopy
- Super-resolution processing in medical imaging
- Technological advances in ultrasound contrast agents
- Emerging photonic imaging techniques
- Biomedical computing on many cores
- Large-scale physiological modeling and simulation initiatives

http://www.biomedicalimaging.org

Memo (to self)

Please turn cell phones/pagers on vibrate

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