

2005 MICCAI Workshop on Open-Source Software

October 30th, 2005 - Palm Springs, CA USA

<http://www.miccai2005.org>

Hosted by
The Insight Software Consortium (ISC)
And
The National Alliance for Medical Image Computing (NA-MIC)

The Workshop on Open-Source Software is a one-day MICCAI event that features oral and poster presentations on open-source software and freely available data for medical image analysis research.

This Workshop has used an open submission and review process, and therefore we expect this Workshop will be a extremely positive experience for the audience as well as the presenters. The open-access Insight Journal was used to collect and publish submissions and reviews, <http://www.insight-journal.org>. A total of 36 papers were submitted. These papers received 87 public reviews. Many reviewers downloaded, installed, and tested the open-source software discussed in the papers, and their experiences played an important role in determining which papers were selected for presentation. Many of these papers have also been downloaded by scores of other readers. After much deliberation, 11 papers were accepted for podium presentation and 10 papers were accepted for poster presentation. This Workshop provides a forum for presenters, reviewers, and readers to further interact, and all in the audience will benefit.

We encourage you to download the following papers from the Insight Journal's website, and we look forward to your participation in the workshop.

Schedule of Podium Presentations

8:00	Welcome <i>Stephen Aylward, Luis Ibanez, Tina Kapur</i>
8:00 - 9:00	The Insight Software Consortium and The Insight Software Journal <i>Luis Ibanez</i>
9:00 - 10:00	The National Alliance for Medical Image Computing <i>Steve Piper; Jim Miller, Ron Kikinis</i>
10:00 - 10:20	<u>Automated high-throughput registration for localizing 3D mouse brain gene expression using ITK</u> <i>Ng, Lydia; Hawrylycz, Michael; Haynor, David</i>

- 10:20 - 10:40 [Creation and Demonstration of a Framework for Handling Paths in ITK](#)
Galeotti, John; Stetten, George
- 10:40 - 11:00 Break & Posters**
- 11:00 - 11:20 [The NLM-Mayo Image Collection: Common Access to Uncommon Data](#)
Holmes, David R III; Workman, Ellis P; Robb, Richard A
- 11:20 - 11:40 [A Quantitative DTI Fiber Tract Analysis Suite](#)
Goodlett, Casey; Corouge, Isabelle; Jomier, Matthieu; Gerig, Guido
- 11:40 - 12:00 [A DICOM-based Software Infrastructure for Data Archiving](#)
Dalal, Dhaval; Jomier, Julien; Aylward, Stephen
- 12:00 - 1:30 Lunch**
- 1:30 - 2:00 Invited Talk**
- 2:00 - 2:20 [Unsupervised Segmentation for Myofiber Counting in Immunofluorescent Microscopy Images](#)
Urish, Kenneth; August, Jonas; Huard, Johnny
- 2:20 - 2:40 [Development of open source software for computer-assisted intervention systems](#)
Kazanzides, Peter; Deguet, Anton; Kapoor, Ankur; Sadowsky, Ofri; LaMora, Andy; Taylor, Russell
- 2:40 - 3:00 [The MITK Approach](#)
Wolf, Ivo; Nolden, Marco; Boettger, Thomas; Wegner, Ingmar; Schoebinger, Max; Hastenteufel, Mark; Heimann, Tobias; Meinzer, Hans-Peter; Vetter, Marcus
- 3:00 - 3:20 [IGSTK: A State Machine Architecture for an Open Source Software Toolkit for Image-Guided Surgery Applications](#)
Ibanez, Luis; Jomier, Julien; Gobbi, David; Avila, Rick; Blake, M. Brian; Kim, Hee-Su; Gary, Kevin; Aylward, Stephen; Cleary, Kevin
- 3:20 - 3:40 [OpenTissue - An Open Source Toolkit for Physics-Based Animation](#)
Erleben, Kenny; Sporring, Jon; Dohlmann, Henrik
- 3:40 - 4:00 [Open Topology: A Toolkit for Brain Isosurface Correction](#)
Jaume, Sylvain; Rondao, Patrice; Macq, Benoit
- 4:00 - 4:20 Break & Posters**
- 4:20 - 6:00 Posters**

Poster Presentations

- 1) [Model-Image Registration of Parametric Shape Models](#)
Baker, Gavin
- 2) [Camino: Diffusion MRI reconstruction and processing](#)
Cook, Philip A; Bai, Yu; Hall, Matt J; Nedjati-Gilani, Shahrum; Seunarine, Kiran K; Alexander, Daniel C
- 3) [Tetrahedral mesh generation for medical imaging](#)
Fedorov, Andriy; Chrisochoides, Nikos; Kikinis, Ron; Warfield, Simon
- 4) [Clustering Based Cardiac Resynchronization Therapy Prediction using Open Source Toolkit PRTools](#)
Huang, Heng; Shen, Li; Zhang, Rong; Makedon, Fillia; Pearlman, Justin
- 5) [A Modification to Otsu Thresholding Method for ICV Segmentation](#)
Li, Andrew; Sivaramakrishna, Radhika; Ortendahl, Doug; Swarnakar, Vivek
- 6) [Comparison of Salient Point Detection Methods for 3D Medical Images](#)
Lloyd, Bryn A.; Szekely, Gabor; Kikinis, Ron; Warfield, Simon K.
- 7) [Guided Diffusion Tensor Tractography with GTRACT: A Validation Study](#)
Magnotta, Vincent
- 8) [Segmentation of Skull-infiltrated Tumors Using ITK: Methods and Validation](#)
Popovic, Aleksandra; Engelhardt, Martin; Radermacher, Klaus
- 9) [A Framework for Algorithm Evaluation and Clinical Application Prototyping using ITK](#)
Rexilius, Jan; Spindler, Wolf; Jomier, Julien; Koenig, Matthias; Hahn, Horst; Link, Florian; Peitgen, Heinz-Otto
- 10) [User-Guided Level Set Segmentation of Anatomical Structures with ITK-SNAP](#)
Yushkevich, Paul A.; Piven, Joseph; Cody, Heather; Ho, Sean; Gee, James C.; Gerig, Guido

Related links

<http://www.insight-journal.org>

<http://www.InsightSoftwareConsortium.org>

<http://www.na-mic.org>



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