

Workshop on Open-Source and Open-Data for MICCAI

Brisbane, Australia

November 2, 2007

Schedule

9:00 – 9:20 Introduction

9:20 – 9:40 [Efficient Implementation of Kernel Filtering](#)
[Beare R; Lehmann G](#)
Rank Filtering, Efficient Methods

9:40 – 10:00 [Radial Thickness Calculation and Visualization for Volumetric Layers](#)
[Wang D; Shi L; Heng P](#)
Volumetric Layers, Radial Thickness

10:00 – 10:20 [Multidimensional Arrays and the nArray Package](#)
[Sadowsky O; Li D; Deguet A; Kazanzides P](#)
Vectors and Matrices, Multidimensional Arrays

10:20 – 11:20 Posters and Break

11:20 – 11:40 [Diffeomorphic Demons Using ITK's Finite Difference Solver Hierarchy](#)
[Vercauteren T; Pennec X; Perchant A; Ayache N](#)
Diffeomorphisms, Demons

11:40 – 12:00 [An Open, Clinically-Validated Database of 3D+t cine-MR Images of the Left Ventricle with Associated Manual and Automated Segmentation](#)
[Najman L; Cousty J; Couprise M; Talbot H; Clément-Guinaudeau S; Goissen T](#)
Image Processing, Myocardial Infarction

12:00 – 12:20 [vtkINRIA3D: A VTK Extension for Spatiotemporal Data Synchronization, Visualization and Management](#)
[Toussaint N; Sermesant M; Fillard P](#)
Spatiotemporal, Synchronization

12:20 – 12:40 [A Framework for Comparison and Evaluation of Nonlinear Intra-Subject Image Registration Algorithms](#)
[Urschler M; Kluckner S; Bischof H](#)
Evaluation, Nonlinear Registration

12:40 – 2:00 Lunch

2:00 – 3:00 Invited Speaker

3:00 – 3:20 [A White Matter Stochastic Tractography System](#)

Ngo T; Westin C; Golland P
DTI, Tractography

3:20 – 3:40 Non-rigid Groupwise Registration using B-Spline Deformation Model
Balci S; Golland P; Wells W
Non-rigid Registration, Groupwise Registration

3:40 – 4:40 Posters and Break

4:40 – 5:00 An Accessible, Hands-on Tutorial System for Image-Guided Therapy and Medical Robotics Using a Robot and Open-Source Software
Pace D; Kikinis R; Hata N
3D Slicer, LEGO Mindstorms NXT

5:00 – 5:20 Tagged Volume Rendering of the Heart: A Case Study
Mueller D
Tagged Volume Rendering, Coronary Arteries

Poster Presentations

Vessel Enhancing Diffusion Filter
Enquobahrie A; Ibanez L; Bullitt E; Aylward S
Hessian, Vesselness

Spherical Wavelet ITK Filter
Gao Y; Nain D; LeFaucheur X; Tannenbaum A
Shape Analysis, Spherical Wavelet

Fast BlockMatching Registration with Entropy-based Similarity
Suarez-Santana E; Nebot R; Westin C; Ruiz-Alzola J
Nonrigid Registration, Multimodal Registration

Optimizing ITK's Registration Methods for Multi-processor, Shared-Memory Systems
Aylward S; Jomier J; Barre S; Davis B; Ibanez L
ITK, Parallel

GoFigure and The Digital Fish Project: Open tools and open data for an imaging based approach to system biology
Gouaillard A; Brown T; Bronner-Fraser M; Fraser S; Megason S
Confocal Imaging, Cell Tracking

Data, Data Everywhere, nor an Image to Read - Finding Open Image Databases
Holmes D; Robb R
Image Databases

Open Source and Open Data for MICCAI

Want to share, replicate, extend, or compare software and data presented at the main conference? Want to publish or learn about the full set of parameters and processes that were needed to achieve results presented at the main conference? This workshop features peer-reviewed submissions that describe the available data and software of MICCAI. We encourage submissions that are complimentary to papers being presented at the main conference, as well as submissions on novel topics.

Important dates for the workshop:

July 1: Deadline for submissions
September 1: Deadline for reviews
September 5: Notification of acceptance
October 29: MICCAI conference begins
November 2: Workshop at MICCAI

The receipt, review, and publication of submissions to this workshop will use the open-access Insight Journal. Authors are encouraged to include other files with their submission, particularly videos, code, and data. Also, submissions are immediately available to any registered member of the Insight Journal (registration is free); and any member may contribute a public, peer-review of any submission. Authors may also post responses to reviews and upload revisions to their submissions.

On September 1, the workshop committee will consider the posted reviews, as well as the intent of the workshop, to select papers for oral and poster presentation. Those decisions will be announced on or about September 5.

When appropriate, authors will be offered the opportunity to have their code distributed with the Insight Toolkit (ITK). However, the use of ITK is not a requisite for submitting to the workshop; featuring other toolkits is strongly encouraged.

Visit the workshop website at

http://www.insightsoftwareconsortium.org/wiki/index.php/2007_MICCAI_Open_Workshop