

**CAPH'08 WORKSHOP PROGRAM: MORNING SESSION, SATURDAY, SEPTEMBER 6, 2008**

9:00 am – 9:15 am

**INTRODUCTORY REMARKS**

*Lei Wang, Northwestern University Feinberg School of Medicine*

9:15 am – 9:40 am

**ORAL SESSION I: APPLICATIONS (Chair: Susanne Mueller)**

**Spatially-Localized Hippocampal Shape Analysis in Late-Life Cognitive Decline**

*Jing Xie, Dan Alcantara, Nina Amenta, Evan Fletcher, Oliver Martinez, Maria Persianinova, Charles DeCarli, and Owen Carmichael.*

University of California, Davis, USA

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9:40 am – 10:05 am

**Spatial Correspondence Based Asymmetry Analysis in Hippocampus: Application to Temporal Lobe Epilepsy**

*Sandhitsu Das, Dawn Mechanic-Hamilton, Marc Korczykowski, John Pluta, Simon Glynn, Brian Avants, John Detre, James Gee, and Paul Yushkevich.*

University of Pennsylvania, USA

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10:05 am – 10:30 am

**Fully-Automated, Multi-Stage Hippocampus Mapping in Very Mild Alzheimer Disease**

*Lei Wang, Ali Khan, John Csernansky, Bruce Fischl, Michael Miller, John Morris, and Faisal Beg.*

Northwestern University Feinberg School of Medicine, USA; Simon Fraser University, Canada; Harvard Medical School, USA; Johns Hopkins University, USA; Washington University School of Medicine, USA

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10:30 am – 10:45 am

**COFFEE BREAK**

10:45 am – 11:30 am

**INVITED TALK**

**The hippocampus: Why regional information matters.**

*Susanne Mueller, M.D.*

Center for Imaging of Neurodegenerative Diseases, VA Medical Center, San Francisco

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11:30 am – 12:00 pm

**POSTER SESSION**

**Automatic Subcortical Segmentation Using a Novel Contextual Model**

*Jonathan Morra, Zhuowen Tu, Liana Apostolova, Amity Green, Arthur Toga, and Paul Thompson.*

University of California, Los Angeles, USA

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**Appearance and Incomplete Label Matching for Diffeomorphic Template Based Hippocampus Segmentation**

*John Pluta, Brian Avants, Simon Glynn, Suyash Awate, James Gee, and John Detre*

University of Pennsylvania, USA

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**Parametric Surface Modeling and Registration for Comparison of Manual and Automated Segmentation of the Hippocampus**

*Li Shen, Hiram Firpi, Andrew Saykin, and John West*

Indiana University

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**Clinical Application of Measurement of Hippocampal Atrophy in Degenerative Diseases**

*Josephine Barnes, Sebastien Ourselin and Nick Fox*

Dementia Research Centre, UCL, Institute of Neurology, USA

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**CAPH'08 WORKSHOP PROGRAM: AFTERNOON SESSION, SATURDAY, SEPTEMBER 6, 2008**

- 12:00 pm – 1:40 pm      **LUNCH**
- 1:40 pm – 2:10 pm      **POSTER AND MORNING PAPER DISCUSSION (Chair: Paul Yushkevich)**
- 2:10 pm – 2:35 pm      **ORAL SESSION II: SEGMENTATION (Chair: Lei Wang)**
- Fully Automatic Hippocampus Segmentation Discriminates between Alzheimer's Disease and Normal Aging - Data from the ADNI database**  
*Marie Chupin, Rémi Cuingnet, Louis Lemieux, Stéphane Lehéricy, Habib Benali, Line Garnero, and Olivier Colliot.*  
Cognitive Neuroscience and Brain Imaging, CNRS UPR640 LENA, France  
pp. 35 – 45
- 2:35 pm – 3:00 pm      **Model-Based Segmentation of Hippocampal Subfields in Ultra-High Resolution In Vivo MRI**  
*Koen Van Leemput, Akram Bakkour, Thomas Benner, Graham Wiggins, Lawrence Wald, Jean Augustinack, Bradford Dickerson, Polina Golland and Bruce Fischl.*  
Harvard Medical School, USA; Massachusetts Institute of Technology, USA  
pp. 46 – 55
- 3:00 pm – 3:10 pm      **SHORT BREAK**
- 3:10 pm – 3:35 pm      **A Computational Atlas of the Human Hippocampus from Postmortem Magnetic Resonance Imaging at 9.4 Tesla**  
*Paul Yushkevich, Brian Avants, John Pluta, David Minkoff, Stephen Pickup, Weixia Liu, James C. Gee, John A. Detre, and Murray Grossman.*  
University of Pennsylvania, USA  
pp. 56 – 67
- 3:35 pm – 4:00 pm      **ORAL SESSION III: MACHINE LEARNING (Chair: Koen Van Leemput)**
- Regularized Discriminative Direction for Shape Difference Analysis**  
*Luping Zhou, Richard Hartley, Lei Wang, Paulette Lieby and Nick Barnes.*  
The Australian National University, Australia; The National ACT, Australia  
pp. 68 – 75
- 4:00 pm – 4:15 pm      **COFFEE BREAK**
- 4:15 pm – 4:40 pm      **Disease Classification with Hippocampal Shape Invariants**  
*Boris Gutman, Yalin Wang, Jonathan Morra, Paul Thompson, and Arthur Toga*  
UCLA Laboratory of Neuro Imaging  
pp. 76 – 86
- 4:40 pm – 5:05 pm      **Adaptive Bayesian Shrinkage Model for Spherical Wavelet Based Denoising and Compression of Hippocampus Shapes**  
*Xavier Le Faucheur, Brani Vidakovic, Delphine Nain, and Allen Tannenbaum*  
Georgia Tech, USA  
pp. 87 – 96
- 5:05 pm – 5:30 pm      **DISCUSSION AND CLOSING REMARKS**  
*Paul Yushkevich, University of Pennsylvania*