

Draft Program

MICCAI Workshop on Histopathology Image Analysis (HIMA@MICCAI'2012) (Friday, 5th October 2012)

08:00–18:00 Registration
09:00–10:30 Morning Session 1

09:00 – 09:50 Prof Ewert Bengtsson (Uppsala University, Sweden) [[Keynote Address](#)]
Computer assisted pathology – past experiences and future prospects

09:50 – 10:10 A. van der Engelen*, W. Niessen, S. Klein, H. Groen, K. van Gaalen, H. Verhagen, J. Wentzel, A. van Lugt, M. de Bruijne, **Automated Segmentation of Atherosclerotic Histology Based on Pattern Classification** (*Erasmus MC, Netherlands)

10:00 – 10:20 A.M. Khan*, H. El-Daly, E. Simmons, N. Rajpoot, **HyMaP: A Hybrid Magnitude-Phase Approach to Unsupervised Segmentation of Tumor Areas in Breast Cancer Histology Images** (*University of Warwick, UK)

10:30–11:00 Coffee break
11:00–12:30 Morning Session 2

11:00 – 11:50 Prof Olivier Lezoray (University of Caen, France) [[Keynote Address](#)]
Computerized Image Analysis in Digital Pathology with Histological and Cytological Virtual Slides

11:50 – 12:10 C. Held*, T. Nattkemper, J. Wenzel, R. Lang, R. Palmisano, T. Wittenberg, **Approaches to automatic parameter fitting in a microscopy image segmentation pipeline: An exploratory parameter space analysis** (*Fraunhofer IIS, Germany)

12:10 – 12:30 A. Janowczyk*, S. Chandran, A. Madabhushi, **Quantifying local heterogeneity via morphologic scale: Distinguishing tumor from stroma** (*IIT Bombay, India)

12:30–14:00 Lunch & posters
14:00–15:30 Afternoon Session 1

14:00 – 14:50 Prof Walter Schubert (Magdeburg University, Germany) [[Keynote Address](#)]
Simultaneous 100-parameter imaging and real time slicing across thousands of protein clusters in a single diagnostic tissue section using TISTM technology at 40nm super-resolution: the human topomome project

14:50 – 15:10 Y. Song*, D. Magee, A. Bulpitt, D. Treanor, **3D reconstruction of multiple stained histology images** (*University of Leeds, UK)

15:10 – 15:30 C. Rose*, K. Naidoo, V. Clay, K. Linton, J. Radford, R. Byers, **A statistical framework for analyzing hypothesized interactions between cells imaged using multispectral microscopy and multiple immunohistochemical markers** (*University of Manchester, UK)

15:30–16:00 Coffee break
16:00–17:30 Afternoon Sessions 2

16:00 – 16:20 P. Schüffler*, T. Fuchs, C.S. Ong, P. Wild, N. Rupp, J. Buhmann, **TMARKER: A free software toolkit for histopathological cell counting and staining estimation** (*ETH Zurich, Switzerland)

16:20 – 16:40 Y. Zhou*, D. Magee, D. Treanor, and A. Bulpitt, **Stain Guided Mean-Shift Filtering in Automatic Detection of Human Tissue Nuclei** (*University of Leeds, UK)

16:40 – 17:00 F. Varray*, J. Kybic, O. Basset, C. Cachard, **Neuromuscular fiber segmentation using particle filtering and discrete optimization** (*Université de Lyon, France)

17:00 – 17:45 **Panel Discussion: Challenges in wide-spread adoption of HIMA algorithms in the clinic: Conversations between the Pathologist and the Computer Scientist**

17:45–18:00 Closing Remarks

Draft Program

Poster Presentations (12:30 – 14:00)

- A. Mathur*, A. Tripathi, M. Kuse, **Scalable System for Classification of White Blood Cells from Leishman Stained Blood Stain Images** (*LNM Institute of Information Technology, India)
- A. Adam*, A. Bulpitt, D. Treanor, **Grading Dysplasia in Barrett's Oesophagus Virtual Pathology Slides with Clutser Co-occurrence Matrices** (*University of Leeds, UK)
- A. Gherardi*, Alessandro Bevilacqua, **Real-time whole slide mosaicing for non-automated microscopes in histopathology analysis** (*ARCES- University of Bologna, Italy.)
- S. McKenna*, T. Amaral, S. Akbar, A. Thompson, L. Jordan, **Immunohistochemical Analysis of Breast Tissue Microarray Images using Contextual Classifiers** (*University of Dundee, UK)
- H. Irshad*, S. Jalali, L. Roux, D. Racoceanu, L.J. Hwee, Gilles L. Naour, Frédérique Capron, **Automated Mitosis Detection Using Texture, SIFT Features and HMAX Biologically Inspired Approach** (*University of Joseph Fourier, France)
- M. Schwier*, T. Boehler, H. Hahn, U. Dahmen, O. Dirsch, **Registration of Histological Whole Slide Images Guided by Vessel Structures** (*Fraunhofer MEVIS, Germany)
- J. Azar*, C. Busch, I. Carlbom, **Histological Stain Evaluation for Machine Learning Applications** (*Uppsala University, Sweden)
- I. Niwas*, A. Kårnsås, V. Uhlmann, Palanisamy P, C. Kampf, M. Simonsson, C. Wählby, R. Strand, **Automated classification of immunostaining patterns in breast tissue from the Human Protein Atlas** (*Uppsala University, Sweden)