

Microscopy Image Analysis for Biomedical Applications

One Day BMVA symposium at the British Computer Society,
5 Southampton Street, London, WC2E 7HA, UK on April 21st 2010.

Chairs: Prof. Stephen McKenna (University of Dundee), Dr. Derek Magee (University of Leeds) and Dr. Nasir Rajpoot (University of Warwick).

- 10.00 **Registration and coffee**
- 10.25 **Welcome and Introduction**
- 10.30 **Invited Talk: Image analysis - a pathologist's perspective**
Darren Treanor (Leeds Teaching Hospitals, NHS Trust, UK)
- 11.10 **Automatic nucleus segmentation of adherent cells from brightfield microscopy images**
Rehan Ali, Tunde Szilágyi, Kamila Hussien, Martin Christlieb, Borivoj Vojnovic, Michael Brady (Stanford University, University of Oxford)
- 11.30 **Classification and scoring of breast tissue microarray spots**
Telmo Amaral, Stephen McKenna, Katherine Robertson, and Alastair Thompson (University of Dundee)
- 11.50 **Automatic neuropathy quantification using corneal confocal microscopy image analysis**
M. A. Dabbah, J. Graham, I. Petropoulos, M. Tavakoli, R.A. Malik (University of Manchester)
- 12.10 **Lunch and Poster Session**
- 14.00 **Invited Talk: Image analysis applications for whole slide imaging: Examples from diabetes, neuroscience and oncology research**
Kate Lillard-Wetherell (Aperio Technologies Inc., USA)
- 14.40 **The application of support vector machines to detect cell nuclei for Automated microscopy**
Ji Wan Han, Toby Breckon, David A. Randell, Gabriel Landini (Cranfield University, University of Birmingham)
- 15.00 **Segmentation of cell clumps for quantitative high throughput analysis**
Simon Li, Claudia Buehnenmann, Bass Hassan, J Alison Noble (University of Oxford)
- 15.20 **Tea and Coffee**
- 15.40 **Tracing curvilinear structures in live microscopy images**
Boguslaw Obara, David Gavaghan, Vicente Grau (University of Oxford)
- 16.00 **Segmentation and tracking of networks of Arabidopsis thaliana cells through Confocal laser microscope images**
V. Sethuraman, A French, D Wells, T Pridmore (University of Nottingham)
- 16.20 **Three-dimensional model construction from confocal microscopy images for accurate diffusion MRI data synthesis**
Eleftheria Panagiotaki, Matt G. Hall, Bernard Siow, Daniel C. Alexander (University College London)
- 16.40 **Closing remarks and finish**

Posters

Multilevel feature extraction for oesophagus epithelial architecture

Afzan Adam, Andy Bulpitt (University of Leeds)

Analysis of images for automatic targeting and data extraction in transmission electron microscopy

N. Coudray, A. Karathanou, J.L. Buessler, G. Hermann, J.P. Urban
(MIPS Laboratory, France)

Real time processing issues in segmentation of time lapse fluorescence imagery

D Crookes, A McArdle, C Gillan, P Miller, H Gribben
(Queen's University Belfast; Andor Bio-Imaging Division, Belfast)

The automatic identification of non-growing follicles in human ovaries

T W Kelsey (University of St. Andrews)

Raman spectral mapping: improving our understanding of colon carcinogenesis

C. A. Kendall, J. Wood, D. Carey, J. Hutchings, T. Cook, N. Shepherd, N. Stone
(Gloucestershire Hospitals NHS Trust)

Automating yeast cell image analysis

Yihui Liu, Ross D. King
(Shandong Institute of Light Industry, China; Aberystwyth University)

A new design tool for feature extraction in noisy images based on greyscale hit-or-miss transforms

Stephen Marshall, Paul Murray (University of Strathclyde)

Characterisation of morphological patterns in pulmonary neuroendocrine carcinoma histology images

Poorna Chandra Suraj B. N., Nasir M. Rajpoot, Muhammad F. Bari, David Snead
(University of Warwick)

The Open Microscopy Environment: informatics and quantitative analysis for biological microscopy, HCAs, and image data repositories

Jason R. Swedlow (University of Dundee) and the OME Consortium

Detecting epithelial nuclei in virtual slides

P Chomphuwiset, R D Boyle, D R Magee, D E Treanor (University of Leeds)

REGISTRATION FORM: 21st April 2010 Meeting

Please return this form to BMVA Secretary, Royston Parkin, 95 Queen Street, Sheffield, S1 1WG, Tel 0114 272 0306, Fax 0114 272 6158 or via email to BMVA@roystonparkin.co.uk. The meeting is free to members of the BMVA but a charge of £20 is payable by non-members. A sandwich lunch is available at a cost of £5 and should be booked in advance. When registering please enclose a cheque for the appropriate amount made payable to "The British Machine Vision Association".

NAME:

ADDRESS:

TEL: BMVA MEMBER: YES/NO

email: LUNCH: YES/NO

VEGETARIAN: YES/NO