

Workshop on

IMAGiNG & MATHEMATiCS

14th of January 2014, 10:15-17:30, Lecture Hall M4, University of Münster,
Einsteinstrasse 64,

After two meeting in Cambridge in 2013, this workshop continues a series of meetings between groups in Cambridge and Münster. This edition's focus is on MRI (morning session) and tracking in cell biology (afternoon session).

The workshop is intended as a forum for open discussion, 15 min talks are followed by 15 min discussions.

Programme:

10:15-10:30 Opening words

10:30-11:00 *Reducing acquisition times of dynamic MRI measurements via contrast-enhanced compressed sensing*, Martin Benning (MRRC and DAMTP, University of Cambridge)

11:00-11:30 *MRI-Based Automatic Generation of Volume Conductor Models for EEG Source Analysis*, Benjamin Lanfer (Department of Computer Science, University of Münster)

11:30-12:00 *Segmenting MRI images of the human brain for monitoring Alzheimer's disease and chronic dementia*, Jan Lellmann (DAMTP, University of Cambridge)

12:00-14:00 Lunch

14:00-14:30 *TBA*, Dimitri Berh and Benjamin Risse (Department of Computer Science, University of Münster)

14:30-15:00 *Cytoplasmic Streaming in Drosophila oocytes*, Philipp Khuc Trong (DAMTP, University of Cambridge)

15:00-15:30 *Methods for automatic mitosis detection and tracking in phase contrast images*, Joana Grah (Institute for Numerical and Applied Mathematics, University of Münster; DAMTP, University of Cambridge)

15:30-16:00 Coffee break

16:00-16:30 *High Content Analysis: Getting Numbers out of Images*, Alexander Schreiner (CRUK CI, University of Cambridge)

16:30-17:00 *CXCR4a chemokine signaling regulates artery patterning by guiding vein-originated arterial endothelial cell migration during zebrafish fin regeneration*, Cong Xu (MPI Molecular Biomedicine, University of Münster)

17:00-17:30 Wrap-up discussion

Location:

Lecture Hall M4, University of Münster, Einsteinstrasse 64

Organisers:

Martin Burger (Institute for Numerical and Applied Mathematics, University of Münster)
Stefanie Reichelt (Cancer Research UK Cambridge Institute, University of Cambridge)
Carola-Bibiane Schönlieb (Department for Applied Mathematics and Theoretical Physics,
University of Cambridge)