Potential Supervisors

Professor Michael Chappell

Prof. Michael Chappell is an Associate Professor of Engineering Science at the Institute of Biomedical Engineering (IBME), Department of Engineering Science, University of Oxford. He is the Director of Training for the Oxford-Nottingham Centre for Doctoral Training in Biomedical Imaging. He is also Governing Body Fellow of Wolfson College and a College Lecturer (tutor) at Trinity College.

Michael heads the Quantitative Biomedical Inference group that brings together inference techniques from information engineering with mathematical models of physics and physiology to estimate quantitative information for biomedical and especially clinical applications. His main interest is in medical imaging of metabolism and haemodynamics, working closely with imaging groups at the FMRIB Centre, OxAVIC and in the Department of Oncology. Michael is currently the Image Analysis Theme lead for the Cancer Imaging Centre in Oxford.

Michael remains part of the Analysis group at the Oxford Centre for Functional MRI of the Brain (FMRIB) and works closely with the physics group there on quantification of metabolism using MRI. As a result of this work Michael was appointed to a Junior Fellowship of the International Society of Magnetic Resonance in Medicine in 2010.

Michael read Engineering Science in Oxford at undergraduate level (1999-2003), specializing in information engineering topics. He then completed his doctorate in the same department (2003-2006), primarily using mathematical models to explore the growth of bubbles from dissolved gases under decompression in the body - a topic of particular relevance to SCUBA divers, where the resulting sickness is commonly referred to as 'the bends'. Subsequently he moved to the FMRIB Centre (2006-2009) to work on the quantification of cerebral perfusion using Arterial Spin Labelling MRI. Before his current appointment he was a senior research associate in the Centre of Excellence in Personalized Healthcare (2009-2012), based at the IBME. During this time he was Deputy Group leader for PUMMA and worked on the quantification of MRI data for use in personalized stroke therapy planning.

Software Tools Developed

BASIL – Bayesian Inference for Arterial Spin Labeling MRI

Quantiphyse - Quantiphyse is a viewing and analysis tool for 3D and 4D biomedical data.

Involvement of DTC Students

Adrian Groves

Joseph Woods