S. Sophie Schauman

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Education

2016 - **D.Phil.** Biomedical Imaging CDT, University of Oxford
- Thesis title: Accelerated Vessel-Selective Cerebral Blood Flow Imaging Using Magnetic Resonance Imaging
- Supervisors: Prof. Peter Jezzard, Dr. Mark Chiew, Dr. Thomas Okell

2013 - 2016 **B.Sc.** Physics with Medical Physics, University College London
- Final year project: Comparison of Different X-ray Imaging Techniques in Breast Cancer
- Supervisors: Prof. Robert Speller, Dr. Robert Moss
- 1st Class Degree and Dean's List Commendee (top 5% in graduating class)

Awards & Scholarships

2016 - 2020 Doctoral Studentship funded through EPSRC Doctoral Training Centre
2018, 2019 ISMRM Trainee Stipend Award
2018 BC-ISMRM Student Stipend
2018 2nd Best Oral Presentation - BCISMRM Postgraduate Symposium
2018 Public Engagement Prize - University of Oxford, Doctoral Training Centre
2018 Magnetic Moment Finalist - ISMRM Public Engagement Competition
2016 The Dean's List - UCL Undergraduate Award of Excellence
2013 The Jubilee Medal - High School Award for Excellence to Student in Graduating Class

Publications

1. **Schauman S.S.**, Chiew M., Okell T.W. "Highly Accelerated Vessel-Selective Arterial Spin Labeling Angiography using Sparsity and Smoothness Constraints", 2019, Magnetic Resonance in Medicine,10.1002/mrm.27979

Conference Abstracts with Oral Presentations

1. **Schauman S.S.**, Chiew M., Okell T.W. "*Highly Accelerated Dynamic 2D and 3D Vessel-Encoded Arterial Spin Labelling Angiography"*, 2019 ISMRM Annual Meeting, Montreal, Canada
   - ISMRM Magna Cum Laude Award
2. **Schauman S.S.**, Chiew M., Okell T.W. *"A Five Minute 4D Vessel-Encoded Arterial Spin Labelling Angiography Scan"*, 2019 BC-ISMRM Postgraduate Symposium, Birmingham, UK
3. **Schauman S.S.**, Chiew M., Okell T.W. "*Heavily undersampled radial acquisition of dynamic vessel-encoded arterial spin labelling angiograms reconstructed in a compressed sensing framework"*, 2018 BC-ISMRM Annual Meeting, Oxford, UK
4. **Schauman S.S.**, Chiew M., Okell T.W. "*Vessel-encoding improves compressed sensing reconstruction of arterial spin labelling angiograms"*, 2018 BC-ISMRM Postgraduate Symposium, London, UK
5. **Schauman S.S.**, Biffi B., Schievano S., Bruse J.L., Arthurs O.J., Sury M.R.J. *"Changes in tracheal shape during gestation"*, 2016 British Journal of Anesthesia Research Forum Winter Meeting, Glasgow, UK

Conference Abstracts with Poster Presentations

1. **Schauman S.S.**, Okell T.W., Chiew M., *"Precision reconstruction of vessel-encoded ASL angiography"*, 2019 BC-ISMRM Annual Meeting, Sheffield, UK
2. **Schauman S.S.**, Chiew M., Okell T.W. "*4D Vessel-Encoded pCASL Angiography in a Five-Minute Scan*", 2019 UM Workshop on Arterial Spin Labelling, Ann Arbor, USA
3. **Schauman S.S.**, Chiew M., Okell T.W. "*Accelerated Acquisition of Vessel-Encoded Arterial Spin Labelling Angiograms with Compressed Sensing*", 2018 ISMRM-ESMRMB Joint Annual Meeting, Paris, France

Conference Abstracts Presented by Others

1. Woods J.G., **Schauman S.S.**, Chiew M., Chappell M.A., Okell T.W. "*Optimization of time-encoded pseudo-continuous ASL angiography with a variable flip-angle scheme*", 2019 ISMRM Annual Meeting, Montreal, Canada

Other Experience

Teaching/Demonstrating

2019 Presenter, Advanced MR Physics Lecture Series (Compressed Sensing and Low-Rank Methods)
- FMRIB, University of Oxford

2018 Demonstrator, Medical Imaging (GLM and Parallel Imaging)
- EPSRC-MRC Centre for Doctoral Training in Biomedical Imaging, University of Oxford

2018 Assistant demonstrator, MR Physics Graduate Course (Image Formation, Fast Imaging)
- FMRIB, University of Oxford

2018, 2019 Demonstrator, Advanced Medical Imaging (Compressed Sensing)
- EPSRC-MRC Centre for Doctoral Training in Biomedical Imaging, University of Oxford

2017 Demonstrator, Introduction to Matlab
- EPSRC-MRC Centre for Doctoral Training in Biomedical Imaging, University of Oxford

Public Engagement

2019 Public engagement ambassador for the Wellcome Centre for Integrative Neuroimaging
- Assistant organiser of *SHElock Holmes - The Brain Detective*, a day about neuroimaging for 11-14 year old girls
- Member of developing team of *The Big Brain Roadshow* taking Neuroscience to local schools
  - Developer of *The Imaged Brain,* an interactive stall explaining 2D Fourier Transforms
  - Cast member of the play *21st Century Phrenology*

2018 Public engagement through board games
- Developed modified version of *Labyrinth* to showcase different imaging techniques.
  - Presented at *ATOM Science Festiva*l, Abingdon, UK

Research

2016 Summer Project Assistant at Great Ormond Street Hospital, London, UK
- Image segmentation and analysis of MR data

2015 Summer Junior Research Scientist at Nikon Metrology, Tring, UK
- R&D on industrial CT systems

2014 Summer Research Assistant on joint project between sUniversity College London (London, UK) and Aalto University (Helsinki, Finland)
- Development and testing of Near Infrared Spectroscopy system and phantom

Administration/Leadership

2019 Organising Committee, Advanced MR Physics Lecture Series,
- FMRIB, University of Oxford

2018-2019 President of Wolfson College Boat Club