# S. Sophie Schauman

Wellcome Centre for Integrative NeuroImaging

University of Oxford

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https://sophieschau.github.io

#### 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

**ISMRM Trainee Stipend Award** 2018, 2019 2018 BC-ISMRM Student Stipend 2018 2nd Best Oral Presentation - BCISMRM Postgraduate Symposium

Doctoral Studentship funded through EPSRC Doctoral Training Centre

Public Engagement Prize - University of Oxford, Doctoral Training Centre 2018 2018 Magnetic Moment Finalist - ISMRM Public Engagement Competition

The Dean's List - UCL Undergraduate Award of Excellence 2016

2013 The Jubilee Medal - High School Award for Excellence to Student in Graduating Class

#### **Publications**

2016 - 2020

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

#### Conference Abstracts with Oral Presentations

- 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
- 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. Woods J.G., Schauman S.S., Chiew M., Chappell M.A., Okell T.W. "Optimization of time-encoded pseudocontinuous ASL angiography with a variable flip-angle scheme", 2019 ISMRM Annual Meeting, Montreal, Canada
- 3. 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
- 4. 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

### 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 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**

2018

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 Festival, Abingdon, UK

#### Research 2016

2014

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

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

Summer Research Assistant on joint project between

University College London (London, UK) and Aalto University (Helsinki, Finland)

#### Development and testing of Near Infrared Spectroscopy system and phantom

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

Administration/Leadership

President of Wolfson College Boat Club 2018-2019