Oliver Pinna

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PROFILE

PhD researcher at King's College London specialising in quantitative MRI methodology, with a focus on magnetisation transfer imaging and zero echo time (ZTE) acquisition. Experienced in MRI sequence development on GE Healthcare platforms, advanced image reconstruction, and scientific computing in Python. Comfortable working across the full research pipeline — from ethics applications and participant scanning through to analysis, modelling, and conference dissemination. Seeking postdoctoral or industry research roles where rigorous MRI physics and translational clinical impact intersect.

EDUCATION

PhD — Quiet Quantitative Magnetisation Transfer MRI with ZTE
2023 – 2026

King's College London · Centre for Neuroimaging Sciences
Expected submission: August 2026

MSc Medical Radiation Physics — Distinction
2021 – 2022

Swansea University

BSc Physics — Distinction
2017 – 2020

Cardiff University

RESEARCH EXPERIENCE

PhD Researcher
2023 – Present

King's College London · Supervisors: Dr Tobias Wood & Prof Gareth Barker

- Designed and implemented GE EPIC pulse sequences for ZTE-based magnetisation transfer imaging, including RF pulse design and gradient waveform optimisation
- Developed Python and C++ pipelines for signal modelling, Bloch simulation, and sequence parameter optimisation
- Built structured analysis workflows using FSL, ANTs, and FreeSurfer for structural and quantitative MRI data
- Led all aspects of participant study: IRAS ethics submission, recruitment, scanning, and data management
- Presented research at the ISMRM Annual Meeting (2024, Singapore; 2026, Cape Town) as first author on both abstracts
- Contributed to lab group knowledge-sharing through regular presentations and internal code reviews

PUBLICATIONS & CONFERENCE ABSTRACTS

Pinna O, Wood TC, Barker GJ. (2024). Quick, Quiet and Quantitative Magnetization Transfer Imaging. *Proceedings of the 32nd Annual Meeting of the ISMRM*, Abstract No. 3829. Singapore.

Pinna O, Ramachandran S, Barker GJ, Wood TC. (2026). Curved ZTE Spokes Enable Quiet and Efficient MTR Imaging. *Proceedings of the ISMRM-ISMRT Annual Meeting and Exhibition*, Abstract No. 2095. Cape Town, South Africa.

TECHNICAL SKILLS

Programming & Software

- Python (primary language): NumPy, SciPy, Matplotlib, Nibabel, Nilearn — used for MRI simulation, sequence optimisation, and image analysis

- GE EPIC scanner programming: pulse sequence development and modification on GE Healthcare MRI platforms
- MRI analysis tools: FSL, ANTs, FreeSurfer
- Version control: Git and GitHub for code management and collaboration
- Linux (daily working environment); C/C++ (basic familiarity)

MRI Methods

- Quantitative MRI: magnetisation transfer, diffusion kurtosis, ZTE acquisition
- MRI sequence modelling, Bloch simulation, and flip angle / TR optimisation
- Advanced reconstruction and post-processing techniques

FUNDING, AWARDS & MEMBERSHIPS

- PhD funded by the MS Society
- ISMRM Stipend Award, $475 — ISMRM Annual Meeting, Singapore (2024)
- KCL Conference Fund, £300 — ISMRM Annual Meeting, Singapore (2024)
- KCL HSDTC (Health Sciences Doctoral Training Centre) Advanced Training Fund, £300 — ISMRM Annual Meeting, Singapore (2024)
- ISMRM Stipend Award, $250 — ISMRM Annual Meeting, Cape Town (2026)
- KCL HSDTC Advanced Training Fund, £300 — ISMRM Annual Meeting, Cape Town (2026)
- Member of the ISMRM since 2023

ADDITIONAL

- Languages: Italian (native), English (full professional proficiency)
- References available on request