

Mo Shahdloo

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Academic Experience

RESEARCH

2020- *Postdoctoral Researcher*, Physics Group, FMRIB, University of Oxford
2014-20 *Graduate Researcher*, ICON Lab, Bilkent University

TEACHING

2020- *Tutor*, FMRIB Graduate Course, University of Oxford
2021-21 *Lead Project TA*, Neuromatch Academy Summer School
2014-20 *Teaching Assistant*, EE Department, Bilkent University

Education

2017-20 PhD in Electrical and Electronics Engineering, Bilkent University, Ankara
Advisor: Tolga Çukur
Dissertation title: *Optimization and Machine-Learning in MRI: Applications in Rapid MR Image Reconstruction and Encoding Models of Cortical Representations*
2014-16 MSc in Electrical and Electronics Engineering, Bilkent University, Ankara
Advisor: Tolga Çukur
2007-11 BSc in Electrical Engineering, Amirkabir University of Technology, Tehran
Advisor: Behzad Samadi

Publications and Talks

ARTICLES

- [7] **Mo Shahdloo**, Urs Schuffelgen, Daniel Papp, Karla Miller, and Mark Chiew. “Model-based dynamic off-resonance correction for improved accelerated fMRI in awake behaving non-human primates”. In: *Magnetic Resonance in Medicine* (Jan. 2022). DOI: 10.1002/MRM.29167.
- [6] Ibrahim Kiremitci, Ozgur Yilmaz, Emin Celik, **Mo Shahdloo**, Alexander G. Huth, and Tolga Çukur. “Attentional Modulation of Hierarchical Speech Representations in a Multi-Talker Environment”. In: *Cerebral Cortex* 31.11 (Nov. 2021), pp. 4986–5005. DOI: 10.1093/cercor/bhab136.

- [5] **Mo Shahdloo**, Emin Çelik, Burcu A. Urgan, Jack L. Gallant, and Tolga Çukur. “Task-Dependent Warping of Semantic Representations During Search for Visual Action Categories”. In: *bioRxiv* (July 2021). DOI: 10.1101/2021.06.17.448789.
- [4] Salman Ul Hassan Dar, Mahmut Yurt, **Mo Shahdloo**, Emrullah Ildiz, Berk Tinaz, and Tolga Çukur. “Prior-Guided Image Reconstruction for Accelerated Multi-Contrast MRI via Generative Adversarial Networks”. In: *IEEE Journal of Selected Topics in Signal Processing* 14.6 (Oct. 2020), pp. 1072–1087. DOI: 10.1109/JSTSP.2020.3001737.
- [3] **Mo Shahdloo**, Emin Çelik, and Tolga Çukur. “Biased Competition in Semantic Representation During Natural Visual Search”. In: *NeuroImage* 216.1 (Aug. 2020), p. 116383. DOI: 10.1016/j.neuroimage.2019.116383.
- [2] **Mo Shahdloo**, Efe Ilicak, Mo Tofighi, Emine U Saritas, A Enis Cetin, and Tolga Çukur. “Projection onto Epigraph Sets for Rapid Self-Tuning Compressed Sensing MRI”. In: *IEEE Transactions on Medical Imaging* 38.7 (July 2019), pp. 1677–1689. DOI: 10.1109/TMI.2018.2885599.
- [1] Salman Ul Hassan Dar, Mahmut Yurt, **Mo Shahdloo**, and Tolga Çukur. “Synergistic Reconstruction and Synthesis via Generative Adversarial Networks for Accelerated Multi-Contrast MRI”. In: *arxiv* (2018). eprint: 1805.10704v1.

PEER REVIEWED CONFERENCE PUBLICATIONS

- [9] Daniel Papp, Urs Schüffegen, **Mo Shahdloo**, Sebastian W Rieger, Aaron T Hess, Matthew Rushworth, and Stuart Clare. “Imaging Performance of a Multi-channel Non-human Primate Coil”. In: *ISMRM*. Online, May 2021, p. 3224.
- [8] **Mo Shahdloo**, Daniel Papp, Urs Schüffegen, Karla Miller, Matthew Rushworth, and Mark Chiew. “Highly Accelerated fMRI of Awake Behaving Non-human Primates via Model-based Dynamic Off-resonance Correction”. In: *ISMRM*. Online, May 2021, p. 257.
- [7] Salman Ul Hassan Dar, Mahmut Yurt, **Mo Shahdloo**, and Tolga Çukur. “Joint Recovery of Variably Accelerated Multi-contrast MRI Acquisitions via Generative Adversarial Networks”. In: *ISMRM*. Montreal, June 2019, p. 0666.
- [6] **Mo Shahdloo**, Mert Acar, and Tolga Çukur. “Attention During Story Listening Modulates Tempo-ral Receptive Windows Across Human Cortex”. In: *CCN*. Berlin, Sept. 2019, PS-1A.52.
- [5] **Mo Shahdloo** and Tolga Çukur. “Trade-off Between Fat-suppression and Partial-voluming in Weighted Combination Alternating Repetition-time (ATR) Balanced SSFP”. In: *ESMRMB*. Rotterdam, Oct. 2019, p. Lo6.09.
- [4] **Mo Shahdloo**, Burcu Ürgan, Emin Çelik, and Tolga Çukur. “Attention to Action Categories Shifts Semantic Tuning Toward Targets Across the Brain”. In: *OHBM*. Rome, June 2019, T661.
- [3] **Mo Shahdloo**, Efe Ilicak, Mo Tofighi, Emine U Saritas, A Enis Cetin, and Tolga Çukur. “Rapid Self-tuning Compressed-sensing MRI Using Projection onto Epigraph Sets”. In: *ISMRM*. Paris, June 2018, p. 0251.
- [2] **Mo Shahdloo** and Tolga Çukur. “Biased Competition in Semantic Representations During Category-based Visual Search”. In: *OHBM*. Vancouver, June 2017.
- [1] **Mo Shahdloo**, Efe Ilicak, Mo Tofighi, Emine U Saritas, A Enis Cetin, and Tolga Çukur. “Adaptive Wavelet Thresholding for Profile-Encoding Reconstruction of Balanced Steady-State Free Precession Acquisitions”. In: *ESMRMB*. Barcelona, Oct. 2017.

INVITED TALKS

- 2021 k-space and MR image reconstruction, *educational talk at British and Irish chapter of ISMRM*
- 2021 Voxelwise modelling: unraveling natural perception, *NeuroTRACT symposium*
- 2020 Mapping language representation in the brain using deep models, *7th Iranian Human Brain Mapping Congress*
- 2019 Biased competition in semantic representations during visual search, *Institute for Advanced Studies in Basic Sciences (IASBS)*

Honors and Awards

- 2014-21 Full scholarship granted by Bilkent University for graduate studies
- 2012 Ranked 28th among 100k participants in Iranian national higher education examination in Electrical Engineering
- 2006 Bronze medal in the Iranian National Physics Olympiad

Community Service

EDITORIAL BOARD

- Frontiers in Neuroinformatics
- OHBM Aperture

AD-HOC REVIEWING

- IEEE Transactions on Medical Imaging
- Signal, Image and Video Processing (SIVP)
- ISMRM annual meeting
- Conference on Cognitive Computational Neuroscience (CCN)

Experience in Industry

- 2014-14 *Hardware developer*, Farineh Fanavar, Tehran, Iran
- 2013-14 *Senior software developer*, KAG inc., Tehran, Iran
- 2011-13 *RnD Engineer*, Kerman Tablo, Tehran, Iran

References

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