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** et al. "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 et al. "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** et al. "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 et al. "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] **Mohammad 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] **Mohammad Shahdloo** et al. "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 et al. "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 et al. "Imaging Performance of a Multi-channel Non-human Primate Coil". In: *ISMRM*. Online, May 2021, p. 3224.

[8] **Mo Shahdloo** et al. "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 et al. "Joint Recovery of Variably Accelerated Multi-contrast MRI Acquisitions via Generative Adversarial Networks". In: *ISMRM*. Montreal, June 2019, p. 0666.

[6] **Mohammad 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] **Mohammad 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. L06.09.

[4] **Mohammad Shahdloo** et al. "Attention to Action Categories Shifts Semantic Tuning Toward Targets Across the Brain". In: *OHBM*. Rome, June 2019, T661.

[3] **Mohammad Shahdloo** et al. "Rapid Self-tuning Compressed-sensing MRI Using Projection onto Epigraph Sets". In: *ISMRM*. Paris, June 2018, p. 0251.

[2] **Mohammad Shahdloo** and Tolga Çukur. "Biased Competition in Semantic Representations During Category-based Visual Search". In: *OHBM*. Vancouver, June 2017.

[1] **Mohammad Shahdloo** et al. "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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