

Mo Shahdloo

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Academic Experience

RESEARCH

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

TEACHING

2020-
2021-21 *Tutor*, FMRIB Graduate Course, University of Oxford
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. **Shahdloo M**, Çelik E, Urgen BA, Gallant JL, and Çukur T. Task-Dependent Warping of Semantic Representations During Search for Visual Action Categories. *Journal of Neuroscience* 2022. DOI: 10.1101/2021.06.17.448789.
6. **Shahdloo M**, Schüffelen U, Papp D, Miller K, and Chiew M. Model-based dynamic off-resonance correction for improved accelerated fMRI in awake behaving non-human primates. *Magnetic Resonance in Medicine* 2022;87:2922–32. DOI: 10.1002/mrm.29167.

5. Kiremitci I, Yilmaz O, Celik E, **Shahdloo M**, Huth AG, and Çukur T. Attentional Modulation of Hierarchical Speech Representations in a Multi-Talker Environment. *Cerebral Cortex* 2021;31:4986–5005. DOI: 10.1093/cercor/bhab136.
4. Dar SUH, Yurt M, **Shahdloo M**, Ildiz E, Tinaz B, and Çukur T. Prior-Guided Image Reconstruction for Accelerated Multi-Contrast MRI via Generative Adversarial Networks. *IEEE Journal of Selected Topics in Signal Processing* 2020;14:1072–87. DOI: 10.1109/JSTSP.2020.3001737.
3. **Shahdloo M**, Çelik E, and Çukur T. Biased Competition in Semantic Representation During Natural Visual Search. *NeuroImage* 2020;216:116383. DOI: 10.1016/j.neuroimage.2019.116383.
2. **Shahdloo M**, Ilicak E, Tofighi M, Saritas EU, Cetin AE, and Çukur T. Projection onto Epigraph Sets for Rapid Self-Tuning Compressed Sensing MRI. *IEEE Transactions on Medical Imaging* 2019;38:1677–89. DOI: 10.1109/TMI.2018.2885599.
1. Dar SUH, Yurt M, **Shahdloo M**, and Çukur T. Synergistic Reconstruction and Synthesis via Generative Adversarial Networks for Accelerated Multi-Contrast MRI. *arxiv* 2018. eprint: 1805.10704v1.

PEER REVIEWED CONFERENCE PUBLICATIONS

11. **Shahdloo M** and Chiew M. Optimal Singular-Value Shrinkage for fMRI Denoising. In: *ISMRM*. London, 2022:4042.
10. **Shahdloo M**, Khalighinejad N, Harbison C, Miller K, Rushworth M, and Chiew M. Dynamic off-resonance correction improves functional data quality in fMRI of awake behaving NHPs. In: *OHBM*. Glasgow, 2022:1726.
9. Papp D, Schüfflgen U, **Shahdloo M**, Rieger SW, Hess AT, Rushworth M, and Clare S. Imaging Performance of a Multi-channel Non-human Primate Coil. In: *ISMRM*. Online, 2021:3224.
8. **Shahdloo M**, Papp D, Schüfflgen U, Miller K, Rushworth M, and Chiew M. Highly Accelerated fMRI of Awake Behaving Non-human Primates via Model-based Dynamic Off-resonance Correction. In: *ISMRM*. Online, 2021:257.
7. Dar SUH, Yurt M, **Shahdloo M**, and Çukur T. Joint Recovery of Variably Accelerated Multi-contrast MRI Acquisitions via Generative Adversarial Networks. In: *ISMRM*. Montreal, 2019:0666.
6. **Shahdloo M**, Acar M, and Çukur T. Attention During Story Listening Modulates Temporal Receptive Windows Across Human Cortex. In: *CCN*. Berlin, 2019:PS-1A.52.
5. **Shahdloo M** and Çukur T. Trade-off Between Fat-suppression and Partial-voluming in Weighted Combination Alternating Repetition-time (ATR) Balanced SSFP. In: *ESMRMB*. Rotterdam, 2019:Lo6.09.
4. **Shahdloo M**, Ürgen B, Çelik E, and Çukur T. Attention to Action Categories Shifts Semantic Tuning Toward Targets Across the Brain. In: *OHBM*. Rome, 2019:T661.
3. **Shahdloo M**, Ilicak E, Tofighi M, Saritas EU, Cetin AE, and Çukur T. Rapid Self-tuning Compressed-sensing MRI Using Projection onto Epigraph Sets. In: *ISMRM*. Paris, 2018:0251.
2. **Shahdloo M** and Çukur T. Biased Competition in Semantic Representations During Category-based Visual Search. In: *OHBM*. Vancouver, 2017.

1. **Shahdloo M**, Ilicak E, Tofighi M, Saritas EU, Cetin AE, and Çukur T. Adaptive Wavelet Thresholding for Profile-Encoding Reconstruction of Balanced Steady-State Free Precession Acquisitions. In: *ESMRMB*. Barcelona, 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

Prof. Mark Chiew,
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 FMRI Centre, University of Oxford,
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Prof. Karla Miller,
 Professor,
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 EEE Dept. and UMRAM,
 Bilkent University,
 cukur@ee.bilkent.edu.tr