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Member Publications
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Amir Alimohammad

2017

- Hennessy, A. and Alimohammad, A. (2017). Design and implementation of a digital secure code-shifted reference UWB transmitter and receiver. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 64(7), 1927-1936.

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- Shinde, V., Kumar, G. J., Valencia, D., and Alimohammad, A. (2018). High-throughput and compact reconfigurable architectures for recursive filters. *IET Communications*, 12(13), 1616-1623.

2019

- Korat, U.A., Alimohammad, A. A reconfigurable hardware architecture for principal component analysis. *Circuits Syst Signal Process* 38, 2097–2113 (2019). <https://doi.org/10.1007/s00034-018-0953-y>
- Valencia, D. and Alimohammad, A. Compact and high-throughput parameterizable architectures for memory-based FFT algorithms, *IET Circuits, Devices, and Systems*. 13 (5):696, 2019. <http://dx.doi.org/10.1049/iet-cds.2018.5556>
- Valencia, D. and Alimohammad, A. An efficient hardware architecture for template matching-based spike sorting, *IEEE Transactions on Biomedical Circuits and Systems*, 13:481-492, 2019.
- Valencia, D., Thies, J. and Alimohammad, A. Frameworks for efficient brain-computer interfacing, *IEEE Transactions on Biomedical Circuits and Systems*, October 14, 2019, DOI: 10.1109/TBCAS.2019.2947130.
- Valencia, D. and Alimohammad, A. A real-time spike sorting system using parallel OSort clustering, *IEEE Transactions on Biomedical Circuits and Systems*, 13(6): 1700-1713, 2019.
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Richard Andersen

2017

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- Armenta Salas, M., Bashford, L. Kellis, S., Jafari, M., Jo, H., Kramer, D., Shanfield, K., Pejisa, K., Lee, B., Liu, C.Y., Andersen, R.A. and Romo, R. Proprioceptive and cutaneous sensations in humans elicited by intracortical microstimulation. *eLife* 2018;7:e32904, DOI: 10.7554/eLife.32904.
- Lee, B., Kramer, D., Armenta Salas, M., Kellis, S., Brown, D., Dobрева, T., Klaes, C., Heck, C., Liu, C. and Andersen, R. A. (2018). Engineering artificial somatosensation through cortical stimulation in humans. *Frontiers in Systems Neuroscience*, 12, 24. doi:10.3389/fnsys.2018.00024

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- Saif-ur-Rehman, M., Lienkämper, R., Parpaley, Y., Wellmer, J., Liu, C., Lee, B., Kellis, S., Andersen, R., Iossifidis, I., Glasmachers, T. and Christian Klaes. SpikeDeepTector: a deep-learning based method for detection of neural spiking activity, *J. Neural Eng.* 16 (2019)
- Kramer, D.R., Kellis, S., Barbaro, M., Salas, M.A., Nune, G., Liu, C.Y., Andersen, R.A. and Lee, B. Technical considerations for generating somatosensation via cortical stimulation in a closed-loop sensory/motor brain-computer interface system in humans. *Journal of Clinical Neuroscience*, 63:116-121, 2019.
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- Lim, J., Wang, P.T., Pu, H., Liu, C.Y., Kellis, S., Andersen, R.A., Heydari, P., Do, A.H. and Nenadic, Z.. Dipole Cancellation as an artifact suppression technique in simultaneous electrocorticography stimulation and recording. 9th International IEEE/EMBS Conference on Neural Engineering (NER) (pp. 725-729). IEEE, March, 2019.

Polina Anikeeva

2011

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2012

- Anikeeva, P. and Deisseroth, K. Photothermal genetic engineering. *ACS Nano*, 6:7548-7552, 2012.

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- Liske, H., Towne, C., Anikeeva, P., Zhao, S., Feng, G., Deisseroth, K. and Delp, S. Optical inhibition of motor nerve and muscle activity in vivo. *Muscle and Nerve*, 47:916-921, 2013.
- Chen, R., Christiansen, M.G. and Anikeeva, P. Maximizing hysteretic losses in magnetic ferrite nanoparticles via model-driven synthesis and materials optimization. *ACS Nano*, 7:8990-9000, 2013.

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Askan Ashrafi

2013

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Scott Bellman

2014

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Timothy Brown

2020

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Bing Brunton

2015

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Howard Chizeck

2011

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