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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.

2018

- Korat, U., and Alimohammad, A. (2018). A Reconfigurable Hardware Architecture for Principal Component Analysis. *Circuits, Systems, and Signal Processing*, Springer.
- Bhagat, N., Valencia, D., Alimohammad, A., and Harris, F. (2018). High-throughput and compact FFT architectures using the Good-Thomas and Winograd algorithms. *IET Communications*, 12(8), 1011-1018.
- 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.

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- Valencia, D. and Alimohammad, A. Compact and high-throughput parameterizable architectures for memory-based FFT algorithms, *IET Circuits, Devices, and Systems*. 2019.
- 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*, October 15, 2019, DOI: 10.1109/TBCAS.2019.2947618
- Thies, J. and Alimohammad, A., Compact and Low-Power Neural Spike Compression Using Undercomplete Autoencoders, *IEEE Transactions on Neural Systems and Rehabilitation Engineering* , 27: 1529-1538, 2019.

Richard Andersen

2017

- Zhang, C.Y., Aflalo, T., Revechkis, B., Rosario, E.R., Ouellette, D., Pouratian, N. and Andersen, R.A., Partially mixed selectivity in human posterior parietal association cortex, *Neuron*, 95:697-708, 2017.

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- 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.
- Wang, P.T., Camacho, E., Wang, M., Li, Y., Shaw, S.J., Armacost, M., Gong, H., Kramer, D., Lee, B., Andersen, R.A. and Liu, C.Y. A benchtop system to assess the feasibility of a fully independent and implantable brain-machine interface. *Journal of neural engineering*, 16(6), p.066043. (2019).
- 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 Electroencephalography 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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- Birmingham, K., Gradinaru, V., Anikeeva, P., Grill, W.M., Píkov, V., McLaughlin, B., Pasricha, P., Weber, D., Ludwig, K., Famm, K., Bioelectronic medicines: a research roadmap. *Nat Rev Drug Discov.*, 13:399-400, 2014.
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Askan Ashrafi

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Scott Bellman

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Bing Brunton

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Howard Chizeck

2011

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Eric Chudler

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