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Journal articles (preprints or in revision)

1. Michon F, Krul E, Sun JJ, **Kloosterman F** (2020) Single-trial dynamics of hippocampal spatial representations are modulated by reward value. **bioRxiv** 2020.10.21.349043. doi: 10.1101/2020.10.21.349043.

Journal articles, peer reviewed, published or in press

2. Van Daal R[#], Çağatay A[#], Michon F[#], Aarts A, Kraft M, **Kloosterman F***, Haesler S* (2020) Chronic Neuropixels recordings in mice and rats. **Nature Protocols** (in press). (# equal contribution, * co-senior authors). [IF: 10.4]
3. Steinmetz NA, Aydin C, Lebedeva A, Okun M, Pachitariu M, Bauza M, Beau M, Bhagat J, Böhm C, Broux M, Chen S, Colonell J, Gardner RJ, Karsh B, **Kloosterman F**, Kostadinov D, Mora-Lopez C, O'Callaghan J, Park J, Putzeys J, Sauerbrei B, van Daal RRJ, Vollan AZ, Wang S, Welkenhuysen M, Ye Z, Dudman JT, Dutta B, Hantman AW, Harris KD, Lee AK, Moser EI, O'Keefe J, Renart A, Svoboda K, Häusser M, Haesler S, Carandini M, Harris TD (2021) Neuropixels 2.0: A miniaturized high-density probe for stable, long-term brain recordings. **Science** 372(6539):eabf4588. doi: 10.1126/science.abf4588. [IF: 41.8]
4. Wouters J, Patrinos P, Kloosterman F and Bertrand A (2020) Multi-Pattern Recognition Through Maximization of Signal-to-Peak-Interference Ratio with Application to Neural Spike Sorting. **IEEE Transactions on Signal Processing** 68:6240-6254. doi: 10.1109/TSP.2020.3033973. [IF 5.0]
5. Wouters J, **Kloosterman F**, Bertrand A (2020) SHYBRID: A graphical tool for generating hybrid ground-truth spiking data for evaluating spike sorting performance. **Neuroinformatics**. doi: 10.1007/s12021-020-09474-8. [IF 3.3]
6. Michon F, Sun JJ, Kim CY, **Kloosterman F** (2020) A Dual Reward-Place Association Task to Study the Preferential Retention of Relevant Memories in Rats. **Frontiers in Behavioral Neuroscience** 14:69. [IF 2.5]
7. Van Daal R, Sun JJ, Ceyssens F, Michon F, Kraft M, Puers R, **Kloosterman F** (2020) System for recording from multiple flexible polyimide neural probes in freely behaving animals. **Journal of Neural Engineering** 17(1), 016046. doi: 10.1088/1741-2552/ab5e19. [IF: 4.8]
8. Michon F, Sun JJ, Kim CY, Ciliberti D, **Kloosterman F** (2019) Post-learning hippocampal replay selectively reinforces spatial memory for highly rewarded locations. **Current Biology** 29(9):1436-1444.e5. [IF: 9.2]
9. Hu S, Ciliberti D, Grosmark AD, Michon F, Ji D, Penagos H, Buzsáki G, Wilson MA, **Kloosterman F***, Chen Z* (2018) Real-Time Readout of Large-Scale Unsorted Neural Ensemble Place Codes. **Cell Reports** 25 (10), 2635-2642.e5 (* equal contribution, co-senior author) [IF: 8.1]
10. Ciliberti D, Michon F, **Kloosterman F** (2018) Real-time classification of experience-related ensemble spiking patterns for closed-loop applications. **Elife** 7, e36275. doi: 10.7554/eLife.36275 [IF: 7.1]
11. Wouters J, **Kloosterman F**, Bertrand A (2018) Towards online spike sorting for high-density neural probes using discriminative template matching with suppression of interfering spikes. **Journal of Neural Engineering** 15 (5), 056005. [IF: 4.8]

12. Yassin YH, Catthoor F, **Kloosterman F**, Couto J, Sun JJ, Kjeldsberg PG, Van Helleputte N (2018). Algorithm/Architecture Co-optimisation Technique for Automatic Data Reduction of Wireless Read-Out in High-Density Electrode Arrays. **ACM Transactions on Embedded Computing Systems** 17(3), 1-19. [IF: 2.6]
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22. **Kloosterman F**, Layton S, Chen Z, Wilson MA (2014). Bayesian Decoding using Unsorted Spikes in the Rat Hippocampus. **Journal of Neurophysiology** 111(1):217-27. [IF: 2.2]
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24. Nguyen DP, **Kloosterman F**, Barbieri R, Brown EN, Wilson MA (2009). Characterizing the dynamic frequency structure of fast oscillations in the rodent hippocampus. **Frontiers in Integrative Neuroscience** 3:11. [IF: 3.1]
25. Davidson TJ*, **Kloosterman F***, Wilson MA (2009). Hippocampal replay of extended experience. **Neuron** 63(4): 497-507. (**equal contribution, F. Kloosterman is corresponding author*) [IF: 14.4]
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37. Wouter J, **Kloosterman F**, Bertrand A (2019) Signal-to-peak-interference ratio maximization with automatic interference weighting for threshold-based spike sorting of high-density neural probe data. 9th International IEEE/EMBS Conference on Neural Engineering (NER), San Francisco, CA, USA. pp. 247-250. doi: 10.1109/NER.2019.8716953
38. Wouters J, **Kloosterman F**, Bertrand A (2018). Data-driven multi-channel filter design with peak-interference suppression for threshold-based spike sorting in high-density neural probes. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). doi: 10.1109/ICASSP.2018.8462517
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