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Publications

Main Research Articles

- 2019 R. Todorova, M. Zugaro. Isolated cortical computations during delta waves support memory consolidation. *Science* 366(6463):377–81. ↓
- 2018 C. Drieu, R. Todorova, M. Zugaro. Nested sequences of hippocampal assemblies during behavior support subsequent sleep replay. *Science* 362(6415):675–679, doi: 10.1126/science.aat2952. 🏆 Prize by the French Academy of Sciences ↓
- 2016 N. Maingret, G. Girardeau, R. Todorova, M. Goutierre, M. Zugaro. Hippocampo-cortical coupling mediates memory consolidation during sleep. *Nature Neuroscience* 19(7):959–64. 🏆 Highly Cited (top 1%) ↓
- 2014 A. Cei, G. Girardeau, C. Drieu, K. El Kanbi, M. Zugaro. Reversed theta sequences of hippocampal cellassemblies during backward travel. *Nature Neuroscience* 17(5):719–24. ↓
- 2014 G. Girardeau, A. Cei, M. Zugaro. Learning-induced plasticity regulates hippocampal sharp wave-ripple drive. *The Journal of Neuroscience* 34(15):5176–83. ↓
- 2009 G. Girardeau, K. Benchenane, S.I. Wiener, G. Buzsáki, M. Zugaro. Selective suppression of hippocampal ripples impairs spatial memory. *Nature Neuroscience* 10:1222–3. 🏆 Highly Cited (top 1%) 🏆 Prize by the French Academy of Sciences ↓
- 2006 L. Hazan* & M. Zugaro* (premiers auteurs équivalents), G. Buzsáki. *Klusters, NeuroScope, NDManager*: a free software suite for neurophysiological data processing and visualization. *Journal of Neuroscience Methods* 155(2):207–16. ↓
- 2005 M. Zugaro, L. Monconduit, G. Buzsáki. Spike phase precession persists after transient intrahippocampal perturbation. *Nature Neuroscience* 8:67–71. ↓
- 2003 M. Zugaro, A. Arleo, A. Berthoz, S.I. Wiener. Rapid spatial reorientation and head direction cells, *The Journal of Neuroscience*, 23(8):3478–82. ↓
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Other Research Articles

- 2021 V. Oberto*, C. Boucly*, H.Y. Gao*, R. Todorova, M. Zugaro, S.I. Wiener. Distributed cell assemblies spanning prefrontal cortex and striatum. *Current Biology* 32(1):1–13.e6.
- 2014 J. Catanese, A. Viggiano, E. Cerasti, M. Zugaro, and S.I. Wiener. Retrospectively and prospectively modulated hippocampal place responses are differentially distributed along a common path in a continuous T-maze. *The Journal of Neuroscience* 34(39):13163–9. ↓
- 2013 A. Arleo, C. Déjean, P. Allegraud, M. Khamassi, M. Zugaro, S.I. Wiener. Optic flow stimuli update anterodorsal thalamus head direction neuronal activity in rats. *The Journal of Neuroscience* 33(42):16790–5. ↓
- 2012 J. Catanese, E. Cerasti, M. Zugaro, A. Viggiano, S.I. Wiener. Dynamics of decision-related activity in hippocampus. *Hippocampus* 22(9):1901–11. ↓
- 2009 S. Herwik, S. Kisban, A.A.A. Aarts, K. Seidl, G. Girardeau, K. Benchenane, M. Zugaro, S.I. Wiener, O. Paul, H.P. Neves, P. Ruther. Fabrication technology for silicon-based microprobe arrays used in acute and sub-chronic neural recording. *Journal of Micromechanics and Microengineering* 19:074008. ↓
- 2008 A. Sirota, S. Montgomery, S. Fujisawa, Y. Isomura, M. Zugaro, G. Buzsáki. Entrainment of neocortical neurons and gamma oscillations by the hippocampal theta rhythm. *Neuron* 60(4):683–97. 🏆 Highly Cited (top 1%) ↓
- 2007 C. Geisler, D. Robbe, M. Zugaro, A. Sirota, G. Buzsáki. Hippocampal place cell assemblies are speed-controlled oscillators. *PNAS* 104(19):8149–54. ↓
- 2005 J. P. Bassett, M. Zugaro, G.M. Muir, E.J. Golob, R.U. Muller, J.S. Taube. Passive movements of the head do not abolish anticipatory firing properties of head direction cells. *Journal of Neurophysiology* 93(3):1304–16. ↓

- 2004 M. Zugaro, A. Arleo, C. Dejean, E. Burguiere, M. Khamassi, S.I. Wiener. Rat anterodorsal thalamic head direction neurons depend upon dynamic visual signals to sepublications/ct anchoring landmark cues. *European Journal of Neuroscience* 20:530–6. ↓
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- 2000 M. Zugaro, E. Tabuchi, S.I. Wiener. Influence of conflicting visual, inertial and substratal cues on head direction cell activity, *Experimental Brain Research* 133:198–208. ↓
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- 2019 C. Drieu, M. Zugaro. Hippocampal Sequences During Exploration: Mechanisms and Functions. *Frontiers in Cellular Neuroscience* doi: 10.3389/fncel.2019.00232. ↓
- 2018 R. Todorova, M. Zugaro. Hippocampal ripples as a mode of communication with cortical and subcortical areas. *Hippocampus* doi: 10.1002/hipo.22997. ↓
- 2011 G. Girardeau, M. Zugaro. Hippocampal ripples and memory consolidation. *Current Opinion in Neurobiology*. 21(3):452–9. ↓
- 2002 S.I. Wiener and M. Zugaro, Multisensory processing for the elaboration of place and head direction responses in the limbic system, *Cognitive Brain Research* 14(1):75–90. ↓

Data Sets

- 2019 N. Maingret, R. Todorova, M. Zugaro. Recordings and timed stimulation of rat dorsal hippocampal area CA1 and medial prefrontal cortex during behavior and sleep. CRCNS.org, <http://doi.org/10.6080/KOTD9VJG>.
- 2018 C. Drieu, R. Todorova, M. Zugaro. Bilateral recordings from dorsal hippocampal area CA1 from rats transported on a model train and sleeping. CRCNS.org, <http://dx.doi.org/10.6080/KOZ899MM>.