

Marcello Massimini, MD, PhD

Selected Bibliography for CV

Note: This is a selected bibliography, not an exhaustive publication list. Entries are arranged in reverse chronological order.

Books

1. **Massimini M**, Tononi G. Sizing Up Consciousness: Towards an Objective Measure of the Capacity for Experience. Oxford: Oxford University Press; 2018.
2. **Massimini M**, Tononi G. Nulla di più grande: Dalla veglia al sonno, dal coma al sogno. Il segreto della coscienza e la sua misura. Milano: Baldini & Castoldi; 2014.

Selected peer-reviewed publications

1. **Massimini M**, Peterchev AV, Vlachos A, Ziemann U, et al. Mechanisms of transcranial magnetic brain stimulation. *Physiol Rev*. 2026. doi:10.1152/physrev.00026.2025.
2. Gaglioti G, Dalla Porta L, Colombo MA, Russo S, Nieuws T, Deco G, Corbetta M, Sarasso S, Sanchez-Vives MV, **Massimini M**. Slow wave generation and propagation in a model of brain lesions. *NeuroImage*. 2026;329:121817. doi:10.1016/j.neuroimage.2026.121817.
3. Colombo MA, Favaro J, Mikulan E, Pigorini A, Zauli FM, Sartori I, **Massimini M**. Hemispherotomy leads to persistent sleep-like slow waves in the isolated cortex of awake humans. *PLoS Biol*. 2025;23(10):e3003060. doi:10.1371/journal.pbio.3003060.
4. Comolatti R, Hassan G, Mikulan E, Russo S, Colombo MA, Litterio, **Massimini M**. Transcranial magnetic vs intracranial electric stimulation: a direct comparison of their effects via scalp EEG recordings. *Brain Stimulation*. 2025;18(5):1444-1454. doi:10.1016/j.brs.2025.07.016.
5. Albertini D, Del Vecchio M, Sartori I, Pigorini A, Talamì F, Zauli FM, Sarasso S, Mikulan EP, **Massimini M**, Avanzini P. Conscious tactile perception entails distinct neural dynamics within somatosensory areas. *Curr Biol*. 2025;35:2583-2596.e3. doi:10.1016/j.cub.2025.04.052.
6. **Massimini M**, Corbetta M, Sanchez-Vives MV, Andrillon T, Deco G, Rosanova M, et al. Sleep-like cortical dynamics during wakefulness and their network effects following brain injury. *Nat Commun*. 2024;15:7207. doi:10.1038/s41467-024-51586-1.
7. Cattani A, Galluzzi A, Fecchio M, Pigorini A, Mattia M, **Massimini M**. Adaptation shapes local cortical reactivity: from bifurcation diagram and simulations to human physiological and pathological responses. *eNeuro*. 2023;10(7):ENEURO.0435-22.2023.
8. Sarasso S, Casali AG, Casarotto S, Rosanova M, Sinigaglia C, **Massimini M**. Consciousness and complexity: a consilience of evidence. *Neurosci Conscious*. 2021;2021(2):niab023.
9. Russo S, Pigorini A, Mikulan E, Sarasso S, Rubino A, Zauli FM, **Massimini M**. Focal lesions induce large-scale percolation of sleep-like intracerebral activity in awake humans. *NeuroImage*. 2021;234:117964.
10. Sarasso S, D'Ambrosio S, Fecchio M, Casarotto S, Vigano A, Landi C, **Massimini M**. Local sleep-like cortical reactivity in the awake brain after focal injury. *Brain*. 2020;143(12):3672-3684.
11. Bayne T, Seth AK, **Massimini M**. Are there islands of awareness? *Trends Neurosci*. 2020;43(1):6-16.
12. Rosanova M, Fecchio M, Casarotto S, Sarasso S, Casali AG, Pigorini A, **Massimini M**. Sleep-like cortical OFF-periods disrupt causality and complexity in the brain of unresponsive wakefulness syndrome patients. *Nat Commun*. 2018;9:4427.
13. Boly M, **Massimini M**, Tsuchiya N, Postle BR, Koch C, Tononi G. Are the neural correlates of consciousness in the front or in the back of the cerebral cortex? Clinical and neuroimaging evidence. *J Neurosci*. 2017;37(40):9603-9613.
14. Koch C, **Massimini M**, Boly M, Tononi G. Neural correlates of consciousness: progress and problems. *Nat Rev Neurosci*. 2016;17(5):307-321.

15. Tononi G, Boly M, **Massimini M**, Koch C. Integrated information theory: from consciousness to its physical substrate. *Nat Rev Neurosci*. 2016;17(7):450-461.
16. Casarotto S, Comanducci A, Rosanova M, Sarasso S, Fecchio M, Napolitani M, **Massimini M**. Stratification of unresponsive patients by an independently validated index of brain complexity. *Ann Neurol*. 2016;80(5):718-729.
17. Sarasso S, Boly M, Napolitani M, Gosseries O, Charland-Verville V, Casarotto S, **Massimini M**. Consciousness and complexity during unresponsiveness induced by propofol, xenon, and ketamine. *Curr Biol*. 2015;25(23):3099-3105.
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19. Casali AG, Gosseries O, Rosanova M, Boly M, Sarasso S, Casali KR, **Massimini M**. A theoretically based index of consciousness independent of sensory processing and behavior. *Sci Transl Med*. 2013;5(198):198ra105. doi:10.1126/scitranslmed.3006294.
20. Huber R, Maki H, Rosanova M, Casarotto S, Canali P, Casali AG, Tononi G, **Massimini M**. Human cortical excitability increases with time awake. *Cereb Cortex*. 2013;23(2):332-338.
21. Rosanova M, Gosseries O, Casarotto S, Boly M, Casali AG, Bruno MA, **Massimini M**. Recovery of cortical effective connectivity and recovery of consciousness in vegetative patients. *Brain*. 2012;135(Pt 4):1308-1320. doi:10.1093/brain/awr340.
22. **Massimini M**, Ferrarelli F, Murphy M, Huber R, Riedner B, Casarotto S, Tononi G. Cortical reactivity and effective connectivity during REM sleep in humans. *Cogn Neurosci*. 2010;1(3):176-183. doi:10.1080/17588921003731578.
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24. **Massimini M**, Ferrarelli F, Esser SK, Riedner BA, Huber R, Murphy M, Peterson MJ, Tononi G. Triggering sleep slow waves by transcranial magnetic stimulation. *Proc Natl Acad Sci U S A*. 2007;104(20):8496-8501. doi:10.1073/pnas.0702495104.
25. **Massimini M**, Ferrarelli F, Huber R, Esser SK, Singh H, Tononi G. Breakdown of cortical effective connectivity during sleep. *Science*. 2005;309(5744):2228-2232. doi:10.1126/science.1117256.
26. Huber R, Ghilardi MF, **Massimini M**, Tononi G. Local sleep and learning. *Nature*. 2004;430(6995):78-81.