Oscillations and synchronization in the motor cortex: What is the functional role of beta?

ANDREI NAKAGAWA SILVA

Biomedical Engineering Lab, Federal University of Uberlandia
Brazil

Summary

1. Introduction

Brain oscillations, as observed by EEG or MEG are... [1] [2] [3]

2. Beta oscillations

What frequency range? [4]

3. Synchronization

4. Functional role

References

[1] W. P. Medendorp, S. M. Beurze, S. Van Pelt, and J. Van Der Werf, "Behavioral and cortical mechanisms for spatial coding and action planning," *Cortex*, vol. 44, pp. 587–597, 2008.

[2] N. J. Davis, S. P. Tomlinson, and H. M. Morgan, "The Role of Beta-Frequency Neural Oscillations in Motor Control," *Journal of Neuroscience*, vol. 32, no. 2, pp. 403–404, 2012.

[3] B. C. M. van Wijk, P. J. Beek, and A. Daffertshofer, "Neural synchrony within the motor system: what have we learned so far?," *Frontiers in Human Neuroscience*, vol. 6, no. September, pp. 1–15, 2012.

[4] O. Jensen, P. Goel, N. Kopell, M. Pohja, R. Hari, and B. Ermentrout, "On the human sensorimotor-cortex beta rhythm: sources and modeling.," *NeuroImage*, vol. 26, no. 2, pp. 347–55, 2005.