

PUBLICATIONS

Preprints

- Bányai, M., Koman, Z., Orbán, G. **Response statistics dissect the contributions of different sources of variability to population activity in V1.** *arXiv:1605.08909*

In journals

- Négyessy, L., Bányai, M., Bazsó F. **What makes the prefrontal cortex so appealing in the era of brain imaging? A network analytical perspective.** *Acta Biologica Hungarica*, 63(S1):38-53, 2012.
- Bányai M, Diwadkar V, Érdi P. **Model-based dynamical analysis of functional disconnection in schizophrenia.** *NeuroImage* 58(3): 870-877, 2011.
- Bányai M, Négyessy L, Bazsó F. **Organisation of signal flow in directed networks.** *Journal of Statistical Mechanics: theory and experiment*, P06001, 2011.
- CD Gore, M Bányai, PM Gray, V Diwadkar, P Érdi. **Pathological Effects of Cortical Architecture on Working Memory in Schizophrenia.** *Pharmacopsychiatry* 43(Suppl 1)592-597, 2010.

In proceedings

- P Érdi, M Bányai, B Ujfalussy, V Diwadkar. The schizophrenic brain: A broken hermeneutic circle. Some new insights and results. *IJCNN, 2011. San José, CA, USA* 3024 - 3027, 2011.
- M. Bányai, T. Nepusz, L. Négyessy, F. Bazsó: Convergence properties of some random networks, *SISY, 2009, Subotica, Serbia*. 241-245.
- L Négyessy, J Minich, D Meszéna, A Buzás, B Jákli, M Bányai, E Procyk, P Barone and F Bazsó: From neuronal communication to the flow of information in the cerebral cortex, *9th Conference Digital Speech and Image Processing, 4-7 October 2012, Kovacica, Serbia*
- Tatjana Lončar-Turukalo, János Minich, Mihály Bányai, Fülöp Bazsó, Péter Odry, László Négyessy, Dragana Bajić: On Ramp Statistics in ISI Time Series, *5th European Conference of the International Federation for Medical and Biological Engineering, Budapest, 14-18 September, 2011*

Other

- Négyessy L, Györffy B, Hanics J, Bányai M, Fonta C, Bazsó F: Signal Transduction Pathways of TNAP: Molecular Network Analyses, *In Neuronal Tissue-Nonspecific Alkaline Phosphatase (TNAP)*, Springer, in press
- Bányai M, Orbán G: Sampling in a hierarchical model of images reproduces top-down effects in visual perception, *Cosyne Abstract*, 2015.
- Érdi P, Bányai M: Introduction to Cognitive Systems. *In: Handbook on Computational Intelligence. Ed. Angelov*, World Scientific Review, in press
- Bányai M: Az agyműködés hálózatai (Functional networks of the brain, in Hungarian), *Természet Világa* 143(11):505-507, 2012.
- M Bányai, B Ujfalussy, V Diwadkar and P Érdi. Impairments in the prefronto-hippocampal interactions explain associative learning deficit in schizophrenia. *BMC Neuroscience* 12(Suppl 1):93, 2011.

- Somogyvári Z, Bányai M, Huhn Z, Kiss T and Érdi P (2009). Entorhinal cortex - dentate gyrus system implements an optimal device for distance representation. *Frontiers in Systems Neuroscience. Conference Abstract: Computational and systems neuroscience*.
- Gore C, Gray P, Kane J, Bányai M, Érdi P: Toward a prefrontal model of short-term synaptic plasticity: network architecture and working memory deficit; #3. In: Michigan Chapter SfN 40th Annual Meeting, Western Michigan Univ. Kalamazoo, MI, May 15, 2009.
- Bányai M, Németh Gy, Feldhoffer G, Cserey Gy (2009). Cooperation and Communication in Robot Swarms. XVII. MAKOG The Nature of Mental and Language Representation.