

Curriculum Vitae

Vasile Vlad MOCA

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Date and place of birth: June 24rd 1979, Cluj-Napoca, Romania

Education

- 2004 – 2010: Ph.D. student at Technical University of Cluj-Napoca (**Ph.D. diploma** in Electronics and Telecommunications – with the thesis entitled "*Methods for analysis and classification of biological signals*")
- 2005 – 2007: Visiting student at Frankfurt Institute for Advanced Studies and Max Planck Institute for Brain Research Frankfurt (Neurophysiology department), Frankfurt am Main, Germany
- 2003 – 2004: Post university studies: Technical University of Cluj-Napoca (**advanced studies diploma** in Modern Techniques in Telecommunications)
- 1998 – 2003: Technical University of Cluj-Napoca (**engineering diploma** in Applied Electronics)

Professional experience

- Since 2017 Vice-president of the Transylvanian Institute of Neuroscience and senior researcher in the Experimental and Theoretical Neuroscience Department, Cluj-Napoca, Romania
- Since 2015 Founder and CTO of Neurodynamics SRL
- 2013 – 2017 Senior researcher in the Experimental and Theoretical Neuroscience Laboratory at the Center for Cognitive and Neural Studies (CONEURAL), Romanian Institute of Science and Technology (RIST), Cluj-Napoca, Romania
- Since 2012 Part of the organization team and teaching assistant for the Transylvanian Experimental Neuroscience Summer School (TENSS – www.tenss.ro)
- 2010 – 2013 Postdoctoral researcher at CONEURAL, RIST

2007 – 2010: PhD researcher at CONEURAL, RIST
2003 – 2005: R&D Software engineer at Hanna Instruments Romania

Reviewer, evaluator

Reviewer Reviews for CNS since 2012
 Review for Soft Computing

Grants

Research grants

2011-2013 “Robust quantification of neural oscillations”, two years postdoc grant
Romanian Government (no. PN-II-RU-PD-2011-3-0065/2011) Amount
~70.000EUR

Selected publications

Moca V.V., Nagy-Dăbâcan A., Bârzan H., Mureşan R.C. (2019), Superlets: time-frequency super-resolution using wavelet sets. *BioRxiv* 58332; doi:10.1101/583732

Moca V.V., Nikolić D., Singer W., Mureşan R.C. (2014), Membrane Resonance Enables Stable and Robust Gamma Oscillations. *Cerebral Cortex* 24:119-142.

Moca V.V., Ţincaş I., Melloni L., Mureşan R.C. (2011), Visual exploration and object recognition by lattice deformation. *PLoS One* 6(7): e22831.

Moca V.V., Scheller B., Mureşan R.C., Daunderer M., Pipa G. (2009), EEG under anesthesia - feature extraction with TESPAP. *Computer Methods and Programs in Biomedicine* 95:191-202.

Mureşan R.C., Jurjuţ O.F., **Moca V.V.**, Singer W., Nikolić D. (2008), The Oscillation Score: An Efficient Method for Estimating Oscillation Strength in Neuronal Activity. *J Neurophysiol* 99:1333-53.

Nikolić D., **Moca V.V.**, Singer W. and Mureşan R.C. (2008), Properties of multivariate data investigated by fractal dimensionality. *Journal of Neuroscience Methods* 172(1):27-33.

Moca V.V., Nikolić D., Mureşan R.C. (2008) *Real and Modeled Spike Trains: Where Do They Meet?*, Lecture Notes in Computer Science (Springer), Vol. 5164, pp 488–497.

Moca V.V., Mureşan R.C. (2013) Discriminating legitimate oscillations from broadband transients. *BMC Neuroscience* 14.

Moca V.V., Scheller B., Mureşan R.C., Daunderer M., Pipa G. (2009) EEG under anesthesia–feature extraction with TESPAP. *Comput Methods Programs Biomed* 95:191–202.

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