

# GUO-RONG WU

## Curriculum Vitae

No.2 Tiansheng Road,  
BeiBei District, Chongqing,  
400715, P.R.China.  
Mobile: (+86) 18302343436

Email: [gronwu@gmail.com](mailto:gronwu@gmail.com)  
[GuorongWu@swu.edu.cn](mailto:GuorongWu@swu.edu.cn)  
[Guorong.Wu@UGent.be](mailto:Guorong.Wu@UGent.be)  
<http://guorongwu.weebly.com>  
<http://scholar.google.com/citations?hl=en&user=BC0dWQsAAAAJ>

### Education

2011.11- 2015.10 (Ph.D), Faculty of Psychological and Pedagogical Sciences, Department of Data Analysis, Ghent University, Belgium (supervisor, Daniele Marinazzo)  
2010.09-2013.12 (Ph.D), Biomedical engineering, University of Electronic Science and Technology of China (UESTC, supervisor: Huaifu Chen)  
2008.09-2010.06 (Master), Applied Mathematics, UESTC  
2004.09-2008.06 (Bachelor), Mathematics and Applied Mathematics, Fujian Normal University.

### Work Experience

2014.03-now, Faculty of Psychology, Southwest University, Chongqing, China  
2015.06-2015.11, Department of Psychiatry and Medical Psychology, Ghent University

### Research Interest:

Granger causality, Hemodynamic response function, Canonical correlation analysis, Complex brain network, Resting-state fMRI, etc.

### Software Development:

Blind HRF deconvolution for resting-state fMRI:

<http://software.incf.org/software/blind-hrf-retrieval-and-deconvolution-for-resting-state-bold>

NeuroImaging toolbox for Causal Connectome:

<http://guorongwu.weebly.com/software.html>

Dynamic Brain Connectome Analysis:

<http://restfmri.net/forum/DynamicBC>

### Published Paper:

(\* Corresponding Author, #Contributed equally to this work)

1. Guorong Wu, Xujun Duan, Wei Liao, Qing Gao, and Huaifu Chen\*. "Kernel canonical-correlation Granger causality for multiple time series." Phys Rev E Stat Nonlin Soft Matter Phys 83: 041921.
2. Guo-Rong Wu, Fuyong Chen, Dezhi Kang, Daniele Marinazzo\*, Huaifu Chen\*."Multi-scale causal connectivity analysis by canonical correlation: theory and application to epileptic brain." IEEE Trans Biomed Eng 58(11): 3088 - 3096.

3. Guo-Rong Wu, Wei Liao, Sebastiano Stramaglia, Ju-Rong Ding, Huaifu Chen, Daniele Marinazzo\*. "A blind deconvolution approach to recover effective connectivity brain networks from resting state fMRI data." *Medical Image Analysis* 17:365-374 .
4. Guo-Rong Wu, Wei Liao, Sebastiano Stramaglia, Huaifu Chen, Daniele Marinazzo\*. "Recovering directed networks in neuroimaging datasets using partially conditioned Granger causality." *Brain Connectivity*, 2013, 3(3): 294-301.
5. Guo-Rong Wu, Sebastiano Stramaglia, Huaifu Chen, Wei Liao\*, Daniele Marinazzo\*. "Mapping the voxel-wise effective connectome in resting state fMRI." *PLoS ONE* 8(9): e73670.
6. Wei Liao#\*, Guo-Rong Wu#\*, Qiang Xu#, Gong-Jun Ji, Zhiqiang Zhang, Yu-Feng Zang, Guangming Lu. *DynamicBC: A MATLAB Toolbox for Dynamic Brain Connectome Analysis*. *Brain Connectivity*, 2014, 4(10):780-90.
7. Guo-Rong Wu, Daniele Marinazzo\*. Point-process deconvolution of fMRI BOLD signal reveals effective connectivity alterations in chronic pain patients. *Brain Topography*, 2014, 28(4): 541-547.
8. Guo-Rong Wu, Chris Baeken\*. Longer depressive episode duration negatively influences HF-rTMS treatment response: a cerebellar metabolic deficiency? *Brain Imaging and Behavior*, 2016, DOI 10.1007/s11682-016-9510-0.
9. Guo-Rong Wu, Daniele Marinazzo. Sensitivity of the resting state hemodynamic response function estimation to autonomic nervous system fluctuations, *Philosophical Transactions of the Royal Society A*, 2016. 374: 20150190.

## Conference:

1. Guorong Wu, Cuiping Xu, Huaifu Chen. "Investigate intracranial EEG with conditional Granger causality and PCA." *Medical Image Analysis and Clinical Applications (MIACA)*, 2010 International Conference on. DOI: 10.1109/MIACA.2010.5528282
2. Guo-Rong Wu, Fuyong Chen, Dezhi Kang, Daniele Marinazzo, Huaifu Chen. "Multi-scale causal connectivity analysis by canonical correlation: theory and application to epileptic brain." *NIPS-2011 Satellite Meeting on Causal Graphs: linking brain structure to function*. Granada.
3. Guo-Rong Wu, Wei Liao, Daniele Marinazzo, Huaifu Chen. "Evaluating directed connectivity in resting brain: method and application to social anxiety disorder." *OHBM*, 2012.6
4. Guorong Wu, Sebastiano Stramaglia and Daniele Marinazzo. "Decomposition of the Transfer Entropy: Partial Conditioning and Informative Clustering." *Neural Information Processing*, Springer, 2012, 226-233. *ICONIP*, 2012.115
5. Guo-Rong Wu, Daniele Marinazzo, Rudi De Raedt, and Chris Baeken. "The influence of intensive HF-rTMS treatment on functional connectivity in treatment-resistant unipolar depression." *BBC*, 2012,11
6. Guorong Wu, Wei Liao, Sebastiano Stramaglia, Daniele Marinazzo. "Recovering directed networks in neuroimaging datasets using partially conditioned Granger

- causality". BMC Neuroscience 2013, 14(Suppl 1):P260. CNS\*2013 meeting.
7. Guorong Wu, Wei Liao, Sebastiano Stramaglia, Huafu Chen, Daniele Marinazzo. "Recovering directed networks in neuroimaging datasets using partially conditioned Granger causality". OHBM, 2013.6
  8. Guorong Wu, Wei Liao, Daniele Marinazzo, Junping Wang, Chunshui Yu, Huafu Chen. "Handedness shapes brain at rest: evidence from hemodynamic response and connectivity". OHBM, 2014.6
  9. Guorong Wu, Daniele Marinazzo. "Retrieving the Hemodynamic Response Function in resting state fMRI: methodology and applications". OHBM, 2016.6