

Personal Information:

Full name: Bálint File

E-mail: balint.file@gmail.com

Date and place of birth: 1986.01.20., Budapest, Hungary

Education:

2018-2020 : PhD candidate (Roska Tamás Doctoral School of Sciences and Technology, Faculty of Information Technology and Bionics, Pázmány Péter Catholic University, Budapest, Hungary)

2015-2018: PhD student (Roska Tamás Doctoral School of Sciences and Technology, Faculty of Information Technology and Bionics, Pázmány Péter Catholic University, Budapest, Hungary)

2013-2015: MSc in Info-Bionics Engineering (Faculty of Information Technology and Bionics, Pázmány Péter Catholic University, Budapest, Hungary)

2009-2013: Bsc Molecular Bionics (Faculty of Information Technology and Bionics, Pázmány Péter Catholic University, Budapest, Hungary)

Professional Experience:

2020 – Research fellow (Complex Systems and Computational Neuroscience Group, Wigner Research Center for Physics, Budapest, Hungary)
Supervisor: Zoltán Somogyvári (PhD, Msc)

2020-: Group leader of Computational Modeling Lab (Institute of Cognitive Neuroscience and Psychology, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary)

2018- : Assistant research fellow (Complex Systems and Computational Neuroscience Group, Wigner Research Center for Physics, Budapest, Hungary)
Supervisor: Zoltán Somogyvári (PhD, Msc)

2015-2018: PhD student (Topic: Graph theoretical investigation of large-scale functional networks)
Supervisor: Prof. István Ulbert (Phd. DSc)

2014 sept-dec: Erasmus internship at “University Hospital, Vrije Universiteit, Department of Clinical Neurophysiology”, Amsterdam, The Netherlands
Supervisor: Prof. C. J. Stam (PhD, DSc), Arjan Hillebrand (PhD)

2013-2016: Trainee (Institute of Cognitive Neuroscience and Psychology, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary)
Supervisor: Prof. Márk Molnár (Phd. Msc.)

2011-2013: Student Member (Institute of Cognitive Neuroscience and Psychology, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary)
Supervisor: Prof. Márk Molnár (Phd. DSc)

Grants:

2018 – Young Researcher Grant (Hungarian Academy of Science)

2018-2020: “New National Excellence Program” grant of the Hungarian Ministry

2014: Erasmus internship: “University Hospital, Vrije Universiteit, Department of Clinical Neurophysiology”, Amsterdam, The Netherlands

2014: “Istituto Italiano di Cultura in Ungaria Budapest Borse Studio” short term travel grant at Claudio Babiloni lab, Rome, Italy

Teaching Experience:

Electrophysiology, Teaching Assistant

Web-mining, Teaching Assistant

Fundamentals of Mathematics, Teaching Assistant

Research Interest:

Free word associations, EEG networks, epilepsy, functional connectivity, graph theory

Publications (<https://scholar.google.hu/citations?user=ipWqPpsAAAAJ&hl=hu&oi=sra>):

Daniel Gero*, Bálint File*, Noreen Hinrichs, Matteo Müller, István Ulbert, Zoltán Somogyvári, Marco Bueter (2020): Mental and emotional representations of "weight loss": free-word association networks in members of bariatric surgery-related social media communities, *Surgery for Obesity and Related Diseases* (in press)* contributed equally

File, B., Nanasi, T., Toth, E., Bokodi, V., Toth, B., Hajnal, B., ... & Fabo, D. (2019). Reorganization of Large Scale Functional Networks During Low Frequency Electrical Stimulation of the Cortical Surface. *International Journal of Neural Systems*.

Gero, D., File, B., Justiz, J., Steinert, R. E., Frick, L., Spector, A. C., & Bueter, M. (2019). Drinking microstructure in humans: a proof of concept study of a novel drinkometer in healthy adults. *Appetite*, 133, 47-60.

File, B., Keczer, Z., Vancsó, A., Böthe, B., Tóth-Király, I., Hunyadi, M., ... & Orosz, G. (2018). Emergence of polarized opinions from free association networks. *Behavior research methods*, 1-15.

Kardos, Z., Tóth, B., Boha, R., File, B., & Molnár, M. (2017). Age-dependent characteristics of feedback evaluation related to monetary gains and losses. *International Journal of Psychophysiology*, 122, 42-49.

Domonkos File, Bálint File, Flóra Bodnár, István Sulykos, Krisztina Kecskés-Kovács, István Czigler (2017): Visual mismatch negativity (vMMN) for low and high level deviances: a control study. *Attention, Perception, & Psychophysics*

Bálint File, Zoltán Klimaj, Zoltán Somogyvári, Lajos Kozák, Gyula Gyebnár, Brigitta Tóth, Zsófia Kardos, István Ulbert, Márk Molnár: Age-related changes of the representative modular structure in the brain, 2016, PRNI IEEE conference proceedings, Trento, Italy

Nánási, T., File, B., Tóth, E., Entz, L., Ulbert, I., Fabó, D., & Eröss, L. (2016, June). Synergism of spectral and coupling modalities in epileptic focus localization from iEEG recordings. In 2016 International Workshop on Pattern Recognition in Neuroimaging (PRNI) (pp. 1-4). IEEE.

Keczer, Z., File, B., Orosz, G., & Zimbardo, P. G. (2016). Social Representations of Hero and Everyday Hero: A Network Study from Representative Samples. *PloS one*, 11(8), e0159354.

Kardos Z, Tóth B, Boha R, File B, Molnár M.: Age-related changes of frontal-midline theta is predictive of efficient memory maintenance. *Neuroscience*. 2014 Jul 25;273:152-62. doi: 10.1016/j.neuroscience.2014.04.071. Epub 2014 May 15.

Tóth B, Kardos Z, File B, Boha R, Stam CJ, Molnár M. : Frontal midline theta connectivity is related to efficiency of WM maintenance and is affected by aging. *Neurobiol Learn Mem.* 2014 Oct;114:58-69. doi: 10.1016/j.nlm.2014.04.009. Epub 2014 Apr 20.

Brigitta Tóth, Bálint File, Roland Boha, Zsófia Kardos, Zoltán Hidasi, Zsófia Anna Gaál, Éva Csibri, Pál Salacz, Cornelis Jan Stam, Márk Molnár: EEG network connectivity changes in mild cognitive impairment — Preliminary results, *International Journal of Psychophysiology*, Available online 6 February 2014, ISSN 0167-8760, <http://dx.doi.org/10.1016/j.ijpsycho.2014.02.001>.

Boha R., Tóth B., Gaál Zs. A., Kardos Zs., File B., Molnár M. Spectral, phase synchronization, and graph theoretical EEG changes related to mental arithmetics. *IDEGGYÓGYÁSZATI SZEMLE/CLINICAL NEUROSCIENCE* 66(5–6): 175–183 (2013)

Molnár M., Tóth B., Boha R., Gaál Zs. A., Kardos Zs., File B., Stam J. C. Aging effects on ERP correlates of emotional word discrimination *CLINICAL NEUROPHYSIOLOGY* 24: 1986–1994 (2013)

Oral presentations:

Daniel Gero*, Bálint File*, Noreen Heinrichs, Matteo Müller¹, István Ulbert, Zoltán Somogyvári, Marco Bueter (2019): The Impact of Bariatric Surgery on the Perception of “Weight-loss”: a Cross-sectional Study Based on Free-word Association Networks in Patients with Severe Obesity, *Text Analytics for Health: Applications and Implications*, Zürich, Switzerland, *presented together

Bálint File, Dániel Gerő, Zsolt Keczer, Gábor Orosz, István Ulbert, Zoltán Somogyvári, Júlia Góth, Noreen Hinrichs, Matteo Müller, Marco Bueter (2019): Modular analysis of free word association for opinion retrieval, 13th Annual International Conference on Psychology, Athens, Greece

Bálint File, Dániel Gerő, Marco Bueter, Zsolt Keczer, Gábor Orosz, Zoltán Somogyvári, Júlia Góth, Noreen Hinrichs, Matteo Müller, István Ulbert (2019): Véleménykinyerés szabad szó asszociációs hálózatok moduláris vizsgálatával, Doktoranduszok Országos Szövetsége, Debrecen

File, B., Keczer, Z., Vancsó, A., Böthe, B., Tóth-Király, I., Hunyadi, M., ... & Orosz, G. (2018). Polarized Opinions from Free Association Networks, *Singapore Conference on Applied Psychology* 2018, Singapore

B. File & D. File, F. Bodnár, I. Sulykos, K. Kecskés-Kovács, Z. Kardos, B. Tóth, M. Molnár, R. Boha, Á. Tóth, D. Fabó, I. Ulbert, I. Czigler (2016): Resting state functional network determines properties of visual mismatch negativity, oral presentation , 1. Hungarian Neuroscience Doctoral Conference (HuNDoC), Budapest, Hungary

Bálint File, Domonkos File, Flóra Bodnár, István Sulykos, Krisztina Kecskés-Kovács, Zsófia Kardos, Brigitta Tóth, Roland Boha, Márk Molnár, Ágota Tóth, Dániel Fabó, István Ulbert, István Czigler: Resting state brain networks predict the characteristics of visual evoked potentials, (2016), *NEURONUS 2016 IBRO & IRUN Neuroscience Forum*, Krakow, Poland.

Poster presentations:

Bálint File, Brigitta Tóth, Zsófia Kardos, Roland Boha, István Ulbert, Zoltán Somogyvári, Márk Molnár (2019): Decline of unidirectional alpha connections in the aging brain, 10th World Congress of Neuroscience, Dauge, Korea

B. File, T. Nánási, E. Tóth, V. Bokodi, L. Entz, I. Ulbert, D. Fabó (2018): Reorganization of large scale functional networks during low frequency electrical stimulation of the cortical surface, *NEURONUS 2018 IBRO & IRUN Neuroscience Forum*, Krakow, Poland.

Bálint File, Emília Tóth, Virág Bokodi, Zsolt Keczer, László Entz, István Ulbert, Dániel Fabó (2017): “Functional connectivity networks of cortico-cortical evoked potentials”, Fens Regional Meeting, Pécs, Hungary

Bálint File, Zsolt Keczer, Gábor Orosz, Beáta Bóthe, István Tóth-Király, Anna Vancsó, Márton Hunyadi, Adrienn Ujhelyi, István Ulbert, Júlia Góth (2017): Attitudes toward migrants: free word association networks bridging social and cognitive representations. 18th General Meeting of the European Association of Social Psychology, Granada, Spain

Bálint File, Emília Tóth, Virág Bokodi, Zsolt Keczer, László Entz, István Ulbert, Dániel Fabó (2017): "Functional connectivity analysis of cortico-cortical evoked potentials", The 16th European Congress of Clinical Neurophysiology, Budapest, Hungary

B. File, D. File, F. Bodnár, I. Sulykos, K. Kecskés-Kovács, Z. Kardos, B. Tóth, R. Boha, M. Márk, Á. Tóth, D. Fabó, I. Ulbert, I. Czigler (2016): Resting state functional subnetworks predict visual event related potentials, Fifth Biennial Conference on Resting State and Brain Connectivity, Vienna, Austria

Bálint File, Emília Tóth, László Entz, Tibor Nánási, Loránd Erőss, István Ulbert, Dániel Fabó (2016): Discovering the functional network behind cortico-cortical evoked potentials, IBRO workshop, poster presentation, Budapest, Hungary

Bálint File, Tibor Nánási, Brigitta Tóth, Márk Molnár, Cornelis J. Stam, Hillebrand Arjan, István Ulbert, Laszlo Entz, Lorand Erőss, Daniel Fabó: Functional connectivity analysis of the human epileptic intracranial EEG networks, 2015, 45th annual meeting of the Society for Neuroscience, Chicago, Illinois, USA

Bálint File, Brigitta Tóth, Roland Boha, C.J. Stam, Arjan Hillebrand, Márk Molnár (2015) Age-related alterations in the connectivity of resting state functional modular structure. 9th World Congress of International Brain Research Organization, Rio de Janeiro, Brazil. Jul. 7-11.

Bálint File, Tibor Nánási, Brigitta Tóth, Márk Molnár, Cornelis J. Stam, Hillebrand Arjan, István Ulbert, László Entz, Loránd Erőss, Daniel Fabó (2015). Functional network analysis of human intracranial EEG recordings XV. Conference of the Hungarian Neuroscience Society, 2015, Budapest

Bálint File, Brigitta Tóth, Roland Boha, Zsófia Kardos, Márk Molnár (2013). Source level based investigation of age-related changes in resting state functional connectivity, The 53rd Annual Meeting of the Society for Psychophysiological Research (Florence, Italy, October). Psychophysiology, Vol. 50, Supplement, p. S25.

Bálint File, Brigitta Tóth, Roland Boha, Zsófia Kardos, Márk Molnár (2013): Age-related changes in resting state functional network characteristics, V. Dubrovnik Conference on Cognitive Science (DuCog), Sleep, neural oscillations and cognition, 2013, Dubrovnik. Learning & Perception, Volume 5, Supplement 1., p. 40.

File B., Tóth B., Roland Boha, Molnár. M. (2013) Age-related alterations in resting state functional modular structure of neural networks. XIV. Conference of the Hungarian Neuroscience Society, 2013, Budapest

File B., Tóth B., Boha R., Hidasi Z., Gaál Zs.A., Stam C.J., Molnár M. (2012). Longitudinal study of resting state functional network characteristics in mild cognitive impairment, 52nd Annual Meeting of Society of Psychophysiology Research, September 19-23, 2012, New Orleans, Louisiana, USA, Psychophysiology, Vol. 49, Supplement , p. S30