

## Dr. Manousos A. Klados

BSc, MSc, PhD, PGCert, FIMA, FHEA

### Summary

I am a highly skilled Mathematician and Data Scientist, holding an M.Sc. in Medical Informatics and a PhD in Applied Neurosciences. Leveraging my extensive academic background, I currently serve as an Associate Professor in Psychology at the University of York. I have more than 70 publications in peer reviewed scientific journals and conferences, while I have extensive experience with funded projects. With a profound expertise in data science, I am actively seeking collaborations with industry partners to contribute my wealth of knowledge and skills to innovative projects.

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### Education

2017 – 2018 PGCert in Higher Education, Aston University, Birmingham, UK  
 2010 – 2014 PhD in Affective Computing, Aristotle University of Thessaloniki, Thessaloniki, Greece  
 2007 – 2009 MSc in Medical Informatics, Aristotle University of Thessaloniki, Thessaloniki, Greece  
 2001 – 2007 BSc in Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece

### Employment

2023 –	<b>Editor in Chief</b> , Brain Organoid and System Neuroscience Journal (published by Elsevier), Research Networks, Oslo, Norway
2020 –	<b>Associate Professor in Psychology</b> , University of York Europe Campus, CITY College, Thessaloniki Greece. <b>Researcher</b> , South East European Research Centre (SEERC), Thessaloniki Greece.
2017 – 2020	<b>Lecturer in Biomedical Engineering</b> , School of Life and Health Sciences, Aston University, UK
2017 – 2018	<b>Research Consultant</b> , Chair of Lifespan Developmental Neuroscience, TU Dresden, Germany. Funded by the project EMOTISK from BMBF (DE).
2016 – 2017	<b>Research and Teaching Fellow</b> , Chair of Lifespan Developmental Neuroscience, TU Dresden, Germany

2014 – 2016	<b>Postdoctoral Fellow</b> , Max Planck Institute for Human Cognitive and Brain Sciences, Germany
2013 – 2015	<b>CEO/PI</b> , Neurofeedback Center of Northern Greece, Greece
2012 – 2014	<b>Research Assistant</b> , Lab of Medical Physics, Aristotle University of Thessaloniki
2011 – 2011	<b>Research Assistant</b> , Computer Science Department, University of Cyprus, Cyprus
2007 – 2010	<b>Research Assistant</b> , Lab of Medical Informatics, Aristotle University of Thessaloniki

### Teaching Experience

2020 –	<b>Applied Neuroscience</b> , MSc in Clinical Neuropsychology, University of York Europe Campus, CITY College
2020 – 2021	<b>Introduction in Research Methods in Clinical Neuropsychology</b> , MSc in Clinical Neuropsychology, International Faculty of the University of Sheffield, CITY College
2020 –	<b>Fundamentals of Neuropsychology</b> , MSc in Clinical Neuropsychology, International Faculty of the University of Sheffield, CITY College
2020 – 2021	<b>Introduction in Research Methods in Counselling Psychology</b> , MSc in Counselling Psychology, International Faculty of the University of Sheffield, CITY College
2020 –	<b>Psychological Research Methods</b> , BSc in Psychology, International Faculty of the University of Sheffield, CITY College.
2020 – 2021	<b>Discovering Science</b> , BSc in Psychology, International Faculty of the University of Sheffield, CITY College.
2020 – 2021	<b>Research Methods in Counselling Psychology</b> , MSc in Counselling Psychology, International Faculty of the University of Sheffield, CITY College.
2018 – 2020	<b>Advanced EEG and MEG Methods in Cognitive Neuroscience</b> , MSc in Cognitive Neuroscience, Aston University, UK
2017 – 2020	<b>Software Engineering (BE1SE1)</b> , Module Leader, BEng/MEng in Biomedical Engineering, Aston University, UK
2017 – 2020	<b>Medical Imaging (BE3IM1)</b> , Module Leader, BEng/MEng in Biomedical Engineering, Aston University, UK
2016 – 2017	<b>EEG Signal Processing</b> , Module Leader, MSc in Cognitive and Affective Neuroscience, TU Dresden Germany
2013 – 2014	<b>Biological Networks</b> , Core Instructor, MSc in Complex Systems and Networks, Aristotle University of Thessaloniki, Greece
2012 – 2012	<b>Biological Networks</b> , Teaching Assistant, MSc in Complex Systems and Networks, Aristotle University of Thessaloniki, Greece
2010 – 2012	<b>Brain Functional Connectivity</b> , Teaching Assistant, MSc in Medical Informatics, Aristotle University of Thessaloniki, Greece
2008 – 2013	<b>EEG Signal Processing</b> , Teaching Assistant, MSc in Medical Informatics, Aristotle University of Thessaloniki, Greece
2008 – 2013	<b>Medical Informatics</b> , Head Lab Tutor, BSc in Medicine and Dentistry, Aristotle University of Thessaloniki, Greece

### Funding

2022 – 2025	<b>ACCTING</b> (co-I). Funded by the European Union's Horizon 2020 research and innovation programme (No: 101036504). 5M, SEERC, GR
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2019 – 2023	<b>HOPE</b> (PI/Coordinator). Funded by the European Union’s Horizon 2020 research and innovation programme (No: 101036504). 1.23M€, Aston University, UK
2018 – 2021	<b>OPTIMEC</b> (co-I). Funded by the Innovate UK under the Knowledge Transfer Partnership. 234.000€, Aston University, UK
2014 – 2016	<b>Personal Grant</b> . Funded by the Max Planck Society for my postdoctoral research, 64.000€, Max Planck Institute of Human Cognitive and Brain Science, Germany
2013 – 2015	<b>NEUROFOS</b> (PI). Funded by the General Secretariat of Research and Technology of Greek Government. 87.000€, Neurofeedback Center of Northern Greece, Greece
2012 – 2012	<b>Scholarship</b> . Scholarship for research excellence by the Aristotle University of Thessaloniki. 4.000€, Aristotle University of Thessaloniki, Greece
2007 – 2009	<b>EPEAK fellow</b> . Scholarship for my studies in the MSc in Medical Informatics by the Greek Ministry Of Education And Religion. 4.000€, Aristotle University of Thessaloniki, Greece

### Awards and Scholarships

2013	<b>Award</b> . Certification of recognition for my publication entitled “Towards A Graph Theoretical Approach To Study Gender Lateralization Effect In Mathematical Thinking” in IEEE 12th International Conference On Bioinformatics And Bioengineering
2010	<b>Distinction</b> . Distinction of my paper entitled “REG-ICA: A Hybrid Methodology Combining Blind Source Separation And Regression Techniques For The Rejection Of Ocular Artifacts” as the most cited articles. Elsevier – Biomedical Signal Processing And Control.
2009	<b>Award</b> . Praise for outstanding research activity within the graduate program of the medical school of the Aristotle University Of Thessaloniki for my publication entitled “REG-ICA: A Hybrid Methodology Combining Blind Source Separation And Regression Techniques For The Rejection Of Ocular Artifacts”. Medical School Of Aristotle University Of Thessaloniki
2009	<b>Award</b> . Certification of merit for my publication entitled “REG-ICA: A New Hybrid Method For Eog Artifact Rejection” in IEEE 9th International Conference On Information Technology And Application In Biomedicine.

### Publications

International Journals (\*Equal Contribution)

1. **Klados, M. A.**, & Pinto, L. (2023). **Navigating the frontiers of neuroscience**. Brain Organoid and Systems Neuroscience Journal, 1, 1–2. <https://doi.org/10.1016/j.bosn.2023.10.001> (Editorial)
2. Mortaheb, S., Van Calster, L., Raimondo, F., **Klados, M. A.**, Boulakis, P. A., Georgoula, K., ... & Demertzi, A. (2022). **Mind blanking is a distinct mental state linked to a recurrent brain profile of globally positive connectivity during ongoing mentation**. Proceedings of the National Academy of Sciences, 119(41), e2200511119. <https://doi.org/10.1073/pnas.2200511119>
3. Stergiadis, C., Kostaridou, V. D., Veloudis, S., Kazis, D., & **Klados, M. A.** (2022). **A Personalized User Authentication System Based on EEG Signals**. Sensors (Basel, Switzerland), 22(18), 6929-6929. <https://doi.org/10.3390/s22186929>

4. Stergiadis, C., Kostaridou, V. D., & **Klados, M. A.** (2022). **Which BSS method separates better the EEG Signals?** A comparison of five different algorithms. *Biomedical Signal Processing and Control*, 72, 103292. <https://doi.org/10.1016/j.bspc.2021.103292>
5. Nday, C. M., Plomariti, C. E., Nigdelis, V. D., Ntakakis, G., Klados, M., & Bamidis, P. D. (2020). Current trends of biomedical signal processing in neuroscience. In *Neurotechnology: Methods, advances and applications* (pp. 7–36). Institution of Engineering and Technology. [https://doi.org/10.1049/PBHE019E\\_ch2](https://doi.org/10.1049/PBHE019E_ch2)
6. Anagnostopoulou, A., Styliadis, C., Kartsidis, P., Romanopoulou, E., Zilidou, V., Karali, C., Karagianni, M., **Klados, M.**, Paraskevopoulos, E., Bamidis, P. D. (2020). **Computerized physical and cognitive training improves the functional architecture of the brain in adults with Down Syndrome: a network science EEG study.** *Network Neuroscience*. Advance publication. [https://doi.org/10.1162/netn\\_a\\_00177](https://doi.org/10.1162/netn_a_00177)
7. **Klados, M. A.**, Konstantinidi, P., Dacosta-Aguayo, R., Kostaridou, V.-D., Vinciarelli, A., & Zervakis, M. (2020). **Automatic Recognition of Personality Profiles Using EEG Functional Connectivity During Emotional Processing.** In *Brain Sciences* (Vol. 10, Issue 5). <https://doi.org/10.3390/brainsci10050278>
8. Sciaraffa, N., **Klados, M. A.**, Borghini, G., Flumeri, G. Di, Babiloni, F., & Aricò, P. (2020). **Double-Step Machine Learning Based Procedure for HFOs Detection and Classification.** *Brain Sciences* 2020, Vol. 10, Page 220, 10(4), 220. <https://doi.org/10.3390/BRAINSCI10040220>
9. Ros, T., Enriquez-Geppert, S., Zotev, V., Young, K. D., Wood, G., Whitfield-Gabrieli, S., Wan, F., Vuilleumier, P., Vialatte, F., Van De Ville, D., Todder, D., Surmeli, T., Sulzer, J. S., Strehl, U., Serman, M. B., Steiner, N. J., Sorger, B., Soekadar, S. R., Sitaram, R., ... Thibault, R. T. (2020). **Consensus on the reporting and experimental design of clinical and cognitive-behavioural neurofeedback studies (CRED-nf checklist).** *Brain*. <https://doi.org/10.1093/brain/awaa009>
10. Baeuchl, C., Chen, H.-Y., Su, Y.-S., Hämmerer, D., **Klados, M. A.\***, & Li, S.-C\*. (2019). **Interactive effects of dopamine transporter genotype and aging on resting-state functional networks.** *PLOS ONE*, 14(5), e0215849. <https://doi.org/10.1371/journal.pone.0215849>
11. **Klados, M. A.**, Paraskevopoulos, E., Pandria, N., & Bamidis, P. D. (2019). **The impact of math anxiety on working memory: A cortical activations and cortical functional connectivity EEG study.** *IEEE Access*, 1–1. <https://doi.org/10.1109/ACCESS.2019.2892808>
12. Pezoulas, V. C., Michalopoulos, K., **Klados, M.**, Micheloyannis, S., Bourbakis, N., & Zervakis, M. (2018). **Functional connectivity analysis of cerebellum using spatially constrained spectral clustering.** *IEEE Journal of Biomedical and Health Informatics*, 1–1. <http://doi.org/10.1109/JBHI.2018.2868918>
13. Ilg, L., **Klados, M.**, Alexander, N., Kirschbaum, C., & Li, S.-C. (2018). **Long-term impacts of prenatal synthetic glucocorticoids exposure on functional brain correlates of cognitive monitoring in adolescence.** *Scientific Reports*, 8(1). <http://doi.org/10.1038/s41598-018-26067-3>
14. Athanasiou, A., **Klados, M. A.**, Pandria, N., Foroglou, N., Kavazidi, K. R., Polyzoidis, K., & Bamidis, P. D. (2017). **A Systematic Review of Investigations into Functional Brain Connectivity Following Spinal Cord Injury.** *Frontiers in Human Neuroscience*. Retrieved from <https://www.frontiersin.org/article/10.3389/fnhum.2017.00517>
15. **Klados, M. A.**, Pandria, N., Micheloyannis, S., Margulies, D., & Bamidis, P. D. (2017). **Math anxiety: Brain cortical network changes in anticipation of doing mathematics.** *International Journal of Psychophysiology*. <http://doi.org/10.1016/j.ijpsycho.2017.05.003>
16. Pezoulas, V., Zervakis, M., Micheloyannis, S., & **Klados, M. A.** (2017). **Resting-state functional connectivity and network analysis of cerebellum with respect to crystallized IQ and gender.** *Frontiers in Human Neuroscience*. Retrieved from <http://journal.frontiersin.org/article/10.3389/fnhum.2017.00189> (senior author)
17. Jakobsen, E., Liem, F., **Klados, M. A.**, Bayrak, Ş., Petrides, M., & Margulies, D. S. (2016). **Automated individual-level parcellation of Broca's region based on functional connectivity.** *NeuroImage*. <http://doi.org/10.1016/j.neuroimage.2016.09.069>

18. **Klados, M. A., & Bamidis, P. D. (2016). A semi-simulated EEG/EOG dataset for the comparison of EOG artifact rejection techniques.** *Data in Brief*, 8, 1004–1006. <http://doi.org/10.1016/j.dib.2016.06.032>
19. Athanasiou, A., **Klados, M. A.**, Styliadis, C., Foroglou, N., Polyzoidis, K., & Bamidis, P. D. (2016). **Investigating the role of alpha and beta rhythms in functional motor networks.** *Neuroscience*. <http://doi.org/10.1016/j.neuroscience.2016.05.044>
20. **Klados, M. A.**, Styliadis, C., Frantzidis, C. A., Paraskevopoulos, E., & Bamidis, P. D. (2016). **Beta-Band Functional Connectivity is Reorganized in Mild Cognitive Impairment after Combined Computerized Physical and Cognitive Training.** *Frontiers in Neuroscience*, 10. <http://doi.org/10.3389/fnins.2016.00055>
21. **Klados, M. A.\***, Simos, P. \*, Micheloyannis, S., Margulies, D., & Bamidis, P. D. (2015). **ERP measures of math anxiety: how math anxiety affects working memory and mental calculation tasks?** *Frontiers in Behavioral Neuroscience*, 9. <http://doi.org/10.3389/fnbeh.2015.00282>
22. Frantzidis, C. A., Vivas, A. B., Tsolaki, A., **Klados, M. A.**, Tsolaki, M., & Bamidis, P. D. (2014). **Functional disorganization of small-world brain networks in mild Alzheimer's Disease and amnesic Mild Cognitive Impairment: an EEG study using Relative Wavelet Entropy (RWE).** *Frontiers in Aging Neuroscience*, 6. <http://doi.org/10.3389/fnagi.2014.00224>
23. **Klados, M. A.** & Bamidis, P.D.(2014). **Beyond the Clinical Use of Neurofeedback.** *Journal of Psychology & Clinical Psychiatry*, 1(3). <http://doi.org/10.15406/jpcpy.2014.01.00014>
24. Bamidis, P. D., Vivas, A. B., Styliadis, C., Frantzidis, C., **Klados, M.A.**, Schlee, W., ... Papageorgiou, S. G. (2014). **A review of physical and cognitive interventions in aging.** *Neuroscience & Biobehavioral Reviews*, 44, 206–220. <http://doi.org/10.1016/j.neubiorev.2014.03.019>
25. **Klados, M. A.**, Kanatsouli, K., Antoniou, I., Babiloni, F., Tzirka, V., Bamidis, P. D., & Micheloyannis, S. (2013). **A Graph theoretical approach to study the organization of the cortical networks during different mathematical tasks.** *PLoS One*, 8(8), e71800. <http://doi.org/10.1371/journal.pone.0071800>
26. Athanasiou, A., Lithari, C., Kalogianni, K., **Klados, M. A.**, & Bamidis, P. D. (2012). **Source Detection and Functional Connectivity of the Sensorimotor Cortex during Actual and Imaginary Limb Movement: A Preliminary Study on the Implementation of eConnectome in Motor Imagery Protocols.** *Advances in Human-Computer Interaction*, 2012, 1–10. <http://doi.org/10.1155/2012/127627>
27. Lithari, C., **Klados, M. A.**, Papadelis, C., Pappas, C., Albani, M., & Bamidis, P. D. (2012). **How does the metric choice affect brain functional connectivity networks?** *Biomedical Signal Processing and Control*, 7(3), 228–236. <http://doi.org/10.1016/j.bspc.2011.05.004>
28. Lithari, C., **Klados, M. A.**, Pappas, C., Albani, M., Kapoukranidou, D., Kovatsi, L., ... Papadelis, C. L. (2012). **Alcohol Affects the Brain's Resting-State Network in Social Drinkers.** *PLoS ONE*, 7(10).
29. **Klados, M. A.**, Papadelis, C., Frantzidis, C., & Bamidis, P. (2011). **Is the Artifact Rejection enhanced if the EOG signals are included in the ICA decomposition?** *Neuroscience Letters*, 500, e50–e51. <http://doi.org/10.1016/j.neulet.2011.05.216>
30. Moridis, C., **Klados, M. A.**, Terzis, V., Economides, A., Karlovasitou, A., Bamidis, P., & Karabatakis, V. (2011). **Audiovisual stimulation to influence alpha brain oscillations: An EEG study of gender differences.** *Neuroscience Letters*, 500, e51. <http://doi.org/10.1016/j.neulet.2011.05.217>
31. Frantzidis, C., Semertzidou, A., Ladas, A., Karagianni, M., Lithari, C., Kyrillidou, A., ... Bamidis, P. (2011). **Detecting neurophysiological alterations during Mild Cognitive Impairment and Dementia using wavelet-based energy computation and a Mahalanobis Distance classifier.** *Neuroscience Letters*, 500, e53. <http://doi.org/10.1016/j.neulet.2011.05.225>
32. **Klados, M. A.**, Papadelis, C., Braun, C., & Bamidis, P. D. (2011). **REG-ICA: A hybrid methodology combining Blind Source Separation and regression techniques for the rejection of ocular artifacts.** *Biomedical Signal Processing and Control*, 6(3), 291–300. <http://doi.org/10.1016/j.bspc.2011.02.001>
33. Frantzidis, C. A., Bratsas, C., **Klados, M. A.**, Konstantinidis, E., Lithari, C. D., Vivas, A. B., ... Bamidis, P. D. (2010). **On the Classification of Emotional Biosignals Evoked While Viewing Affective Pictures:**

- An Integrated Data-Mining-Based Approach for Healthcare Applications.** IEEE Transactions on Information Technology in Biomedicine, 14(2), 309–318. <http://doi.org/10.1109/TITB.2009.2038481>
34. Lithari, C., Frantzidis, C., **Klados, M. A.**, & Bamidis, P. D. (2010). **Does arousal and valence affect ERPs and brain connectivity? A study during an emotional paradigm.** International Journal of Psychophysiology, 77(3), 266–266. <http://doi.org/10.1016/j.ijpsycho.2010.06.101>
35. Lithari, C., Frantzidis, C. A., Papadelis, C., Vivas, A. B., **Klados, M. A.**, Kourtidou-Papadeli, C., ... Bamidis, P. D. (2010). **Are females more responsive to emotional stimuli? A neurophysiological study across arousal and valence dimensions.** Brain Topography, 23(1), 27–40. <http://doi.org/10.1007/s10548-009-0130-5>
36. **Klados, M. A.**, Frantzidis, C., Vivas, A. B., Papadelis, C., Lithari, C., Pappas, C., & Bamidis, P. D. (2009). **A Framework Combining Delta Event-Related Oscillations (EROs) and Synchronisation Effects (ERD/ERS) to Study Emotional Processing.** Computational Intelligence and Neuroscience, 2009, 1–16. <http://doi.org/10.1155/2009/549419>

#### Presentations in International Conferences with Published Proceedings

1. Giannakaki, K., Giannakakis, G., Vorgia, P., **Klados, M.**, & Zervakis, M. (2019). **Automatic Absence Seizure Detection Evaluating Matching Pursuit Features of EEG Signals.** 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), 886–889. <https://doi.org/10.1109/BIBE.2019.00165>
2. Klados, G. A., Zervakis, M., Dacosta-Aguayo, R., Fratini, A., & **Klados, M. A.** (2019). **Towards a Novel Way to Predict Deficits After a Brain Lesion: A Stroke Example.** 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), 737–741. <https://doi.org/10.1109/BIBE.2019.00138>
3. Fenech, M., Seri, S., & **Klados, M.** (2019). **High-Frequency Oscillations in Epilepsy: A Short Review.** 2019 IEEE 19th International Conference on Bioinformatics and Bioengineering (BIBE), 882–885. <https://doi.org/10.1109/BIBE.2019.00164>
4. Pezoulas, V. C., Athanasiou, A., Nolte, G., Zervakis, M., Fratini, A., Fotiadis, D. I., & **Klados, M. A.** (2018). **FCLAB: An EEGLAB module for performing functional connectivity analysis on single-subject EEG data.** In 2018 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI) (pp. 96–99). IEEE. <https://doi.org/10.1109/BHI.2018.8333378>
5. **Klados, M. A.**, Pandria, N., Athanasiou, A., & Bamidis, P. D. (2017). **An Automatic EEG Based System for the Recognition of Math Anxiety.** In 2017 IEEE 30th International Symposium on Computer-Based Medical Systems (CBMS) (pp. 409–412). IEEE. <http://doi.org/10.1109/CBMS.2017.107>
6. Dacosta-Aguayo, R., Stephan-Otto, C., Auer, T., Clemente, I., Davalos, A., Bargallo, N., ... **Klados, M. A.** (2017). **Predicting Cognitive Recovery of Stroke Patients from the Structural MRI Connectome Using a Naïve Bayesian Tree Classifier.** In 2017 IEEE 30th International Symposium on Computer-Based Medical Systems (CBMS) (pp. 413–418). IEEE. <http://doi.org/10.1109/CBMS.2017.106>
7. **Klados, M.A.**, Lauckner, M., Jackobsen, E., & Daniel, M. (2016). **Characterizing the Primary Spectrum of Personality and Brain Connectivity.** In 22nd Annual Meeting of the Organization for Human Brain Mapping.
8. Pezoulas, V., Zervakis, M., Micheloyannis, S., & **Klados, M. A.** (2016). **Investigating the correlation between crystallized IQ and network metrics in cerebellum using resting-state fMRI.** Frontiers in Human Neuroscience, 10. <http://doi.org/10.3389/conf.fnhum.2016.220.00013>
9. **Klados, M. A.** (2016). **Human Connectome as a big-data problem: New approaches for analysis and visualization.** Frontiers in Human Neuroscience, 10. <http://doi.org/10.3389/conf.fnhum.2016.220.00012>
10. Athanasiou, A., **Klados, M. A.**, Astaras, A., Foroglou, N., Magras, I., & Bamidis, P. D. (2016). **State of the Art and Future Prospects of Nanotechnologies in the Field of Brain-Computer Interfaces.** In

- XIV Mediterranean Conference on Medical and Biological Engineering and Computing (pp. 456–460). Springer. [http://doi.org/10.1007/978-3-319-32703-7\\_89](http://doi.org/10.1007/978-3-319-32703-7_89)
11. Athanasiou, A., **Klados, M. A.**, Foroglou, N., Klados, K. R., Polyzoidis, K., & Barnidis, P. D. (2016). **Reorganization of brain networks after spinal cord injury: a qualitative synthesis of the literature.** *Frontiers in Human Neuroscience*, 10. <http://doi.org/10.3389/conf.fnhum.2016.220.00036>
  12. Bayrak, Ş., Margulies, D., Bamidis, P., & **Klados, M. A.** (2016). **Mathematical Anxiety influences the cortical connectivity profiles in lower alpha band during working memory tasks.** *Frontiers in Human Neuroscience*, 10. <http://doi.org/10.3389/conf.fnhum.2016.220.00001>
  13. Jakobsen, E., **Klados, M.A.**, Zelmer, J., Goulas, A., & Margulies, D. S. (2015). **Automated individual-level parcellation of Broca's region based on resting-state functional connectivity.** In 21st Annual Meeting of the Organization for Human Brain Mapping (OHBM).
  14. **Klados, M. A.**, Styliadis, C., & Bamidis, P. D. (2014). **A Short Review on Emotional Recognition Based on Biosignal Pattern Analysis.** In XIII Mediterranean Conference on Medical and Biological Engineering and Computing (pp. 787–790). [http://doi.org/10.1007/978-3-319-00846-2\\_195](http://doi.org/10.1007/978-3-319-00846-2_195)
  15. Bamparopoulos, G., **Klados, M. A.**, Papathanasiou, N., Antoniou, I., Micheloyannis, S., & Bamidis, P. D. (2014). **Studying Functional Brain Networks to Understand Mathematical Thinking: A Graph-Theoretical Approach.** In L. M. Roa Romero (Ed.), XIII Mediterranean Conference on Medical and Biological Engineering and Computing (Vol. 41, pp. 783–786). Springer International Publishing. [http://doi.org/10.1007/978-3-319-00846-2\\_194](http://doi.org/10.1007/978-3-319-00846-2_194)
  16. **Klados, M. A.**, Nikolaidou, M., Konstantinidis, E., Chifari, A., & Bamidis, P. D. (2013). **A short review of computerized monitoring systems for ADHD.** In Proceedings of the 26th IEEE International Symposium on Computer-Based Medical Systems (pp. 556–557). IEEE. <http://doi.org/10.1109/CBMS.2013.6627875>
  17. **Klados, M. A.**, Lithari, C., Antoniou, I., Semertzidou, A., Bratsas, C., Micheloyannis, S., & Bamidis, P. D. (2012). **Towards a graph theoretical approach to study gender lateralization effect in mathematical thinking.** In 2012 IEEE 12th International Conference on Bioinformatics & Bioengineering (BIBE) (pp. 666–670). IEEE. <http://doi.org/10.1109/BIBE.2012.6399746>
  18. Frantzidis, C. A., Diamantoudi, M. D., Grigoriadou, E., Semertzidou, A., Billis, A., Konstantinidis, E., ... Bamidis, P. D. (2012). **A Mahalanobis Distance Based Approach towards the Reliable Detection of Geriatric Depression Symptoms Co-existing with Cognitive Decline.** In L. Iliadis, I. Maglogiannis, H. Papadopoulos, K. Karatzas, & S. Sioutas (Eds.), *Artificial Intelligence Applications and Innovations SE - 2* (Vol. 382, pp. 16–25). Springer Berlin Heidelberg. [http://doi.org/10.1007/978-3-642-33412-2\\_2](http://doi.org/10.1007/978-3-642-33412-2_2)
  19. Artikis, A., Bamidis, P. D., Billis, A., Bratsas, C., Frantzidis, C., Karkaletsis, V., ... others. (2012). **Supporting tele-health and AI-based clinical decision making with sensor data fusion and semantic interpretation: The USEFIL case study.** *International Workshop on Artificial Intelligence and NetMedicine*, 21.
  20. **Klados, M. A.**, Bratsas, C., Frantzidis, C., Papadelis, C. L., & Bamidis, P. D. (2010). **A Kurtosis-Based Automatic System Using Naïve Bayesian Classifier to Identify ICA Components Contaminated by EOG or ECG Artifacts.** In XII Mediterranean Conference on Medical and Biological Engineering and Computing (pp. 49–52). [http://doi.org/10.1007/978-3-642-13039-7\\_13](http://doi.org/10.1007/978-3-642-13039-7_13)
  21. Lithari, C., **Klados, M. A.**, & Bamidis, P. D. (2010). **Graph Analysis on Functional Connectivity Networks during an Emotional Paradigm.** In XII Mediterranean Conference on Medical and Biological Engineering and Computing (pp. 115–118). Springer. [http://doi.org/10.1007/978-3-642-13039-7\\_29](http://doi.org/10.1007/978-3-642-13039-7_29)
  22. Moridis, C. N., **Klados, M. A.**, Terzis, V., Economides, A. A., Karabatakis, V. E., Karlovasitou, A., & Bamidis, P. D. (2010). **Affective Learning: Empathetic Embodied Conversational Agents to Modulate Brain Oscillations.** In XII Mediterranean Conference on Medical and Biological Engineering and Computing (pp. 675–678). [http://doi.org/10.1007/978-3-642-13039-7\\_170](http://doi.org/10.1007/978-3-642-13039-7_170)
  23. Komnidis, A., Konstantinidis, E., Stylianou, I., **Klados, M. A.**, Kalfas, A., & Bamidis, P. D. (2010). **A Modular Architecture of a Computer-Operated Olfactometer for Universal Use.** In XII Mediterranean

- Conference on Medical and Biological Engineering and Computing (pp. 280–283). [http://doi.org/10.1007/978-3-642-13039-7\\_70](http://doi.org/10.1007/978-3-642-13039-7_70)
24. Moridis, C. N., **Klados, M. A.**, Kokkinakis, I. A., Terzis, V., Economides, A. A., Karlovasitou, A., ... Karabatakis, V. E. (2010). **The impact of audio-visual stimulation on alpha brain oscillations: An EEG study.** In Proceedings of the 10th IEEE International Conference on Information Technology and Applications in Biomedicine (pp. 1–4). IEEE. <http://doi.org/10.1109/ITAB.2010.5687651>
  25. Frantzidis, C. A., Lithari, C. D., **Klados, M. A.**, Pappas, C., & Bamidis, P. D. (2010). **Synchronization analysis of short EEG data through time-evolving relative wavelet entropy and IAPS affective visual stimuli.** In Proceedings of the 10th IEEE International Conference on Information Technology and Applications in Biomedicine (pp. 1–4). IEEE. <http://doi.org/10.1109/ITAB.2010.5687646>
  26. Peranonti, E. G., **Klados, M. A.**, Papadelis, C. L., Kontotasiou, D. G., Kourtidou-Papadeli, C., & Bamidis, P. D. (2010). **Can the EEG Indicate the FiO2 Flow of a Mechanical Ventilator in ICU Patients with Respiratory Failure?** In XII Mediterranean Conference on Medical and Biological Engineering and Computing 2010 (pp. 827–830). Springer. [http://doi.org/10.1007/978-3-642-13039-7\\_209](http://doi.org/10.1007/978-3-642-13039-7_209)
  27. Lithari, C., Frantzidis, C. A. A., Papadelis, C., **Klados, M. A.**, Pappas, C., & Bamidis, P. D. D. (2010). **Small-world properties of brain Functional Connectivity Networks are affected by emotional stimuli.** In Proceedings of the 10th IEEE International Conference on Information Technology and Applications in Biomedicine (pp. 1–4). IEEE. <http://doi.org/10.1109/ITAB.2010.5687815>
  28. Bratsas, C., Frantzidis, C. A., **Klados, M.A.**, Papadelis, C., Pappas, C., & Bamidis, P. D. (2009). **Towards a semantic framework for an integrative description of neuroscience patterns and studies: a case for emotion-related data.** Studies in Health Technology and Informatics, 150, 322–6. <http://doi.org/10.3233/978-1-60750-044-5-322>
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  30. Bamidis, P. D., Frantzidis, C. A., Konstantinidis, E. I., Luneski, A., Lithari, C., **Klados, M. A.**, ... Pappas, C. (2009). **An Integrated Approach to Emotion Recognition for Advanced Emotional Intelligence.** In 13th International Conference of HCI International (pp. 565–574). [http://doi.org/10.1007/978-3-642-02580-8\\_62](http://doi.org/10.1007/978-3-642-02580-8_62)
  31. **Klados, M. A.**, Papadelis, C. L., & Bamidis, P. D. (2009). **REG-ICA: A new hybrid method for EOG Artifact Rejection.** In 2009 9th International Conference on Information Technology and Applications in Biomedicine (pp. 1–4). IEEE. <http://doi.org/10.1109/ITAB.2009.5394295>

### (Co-) Supervision of Students

#### *PhD Students*

- |             |  |
|-------------|--|
| 2022 –      | <b>Christos Stergiadis.</b> Modeling the propagation of HFOs using graph theory. University of York              |
| 2022 –      | <b>Irena Chausevska Danilovska.</b> The neural marker of successful entrepreneurs. University of York, UK        |
| 2018 – 2019 | <b>Fabio Barolo.</b> Modeling of EMG artifacts in the scalp using Finite Element Modelling. Aston University, UK |

I have supervised more than 50 BSc and MSc thesis from 2017 until now.

### Continuous Professional Development



- 2023 **Google Advanced Data Analytics Professional Certificate**, Google Inc.  
 2013 **Computational Neuroscience**, University of Washington

Various courses about data science, statistics, programming (Python, R, etc.), visualization, project management, research proposal, scientific publishing and editing.

### Scientific Activities

#### Talks:

- 2023 Invited Keynote speaker at “**BCI & Neurotechnology Spring School 2023**”, Gratz, Austria
- 2019 Invited Keynote speaker at «**Out of the Lab employment of Neurophysiological measures: clinical applications and beyond**» Workshop. University of Sapienza, Rome, Italy
- 2019 Invited talk in **GIGA Consciousness**. Univrsity of Liege, Liege, Belgium
- 2018 Invited Lecture in **Biomedical Engineering**. University of Cagliari, Cagliari, Italy
- 2018 Oral Presentation in **IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)**. Chicago, USA
- 2017 Two Oral Presentations in **30<sup>th</sup> IEEE International Symposium on Computer-Based Medical Systems (CBMS)**. Thessaloniki, Greece
- 2016 Three Oral Presentations in **Society of Applied Neuroscience Meeting 2016**. Corfu, Greece
- 2013 Oral Presentation in **XIII Mediterranean Conference on Medical and Biological Engineering and Computing**. Seville, Spain
- 2013 Oral Presentation in **26<sup>th</sup> IEEE International Symposium on Computer-Based Medical Systems (CBMS)**. Porto, Portugal.
- 2013 Oral Presentation in **12<sup>th</sup> IEEE International Conference on Bioinformatics & Bioengineering (BIBE)**. Larnaca, Cyprus.
- 2010 Oral Presentation in **XII Mediterranean Conference on Medical and Biological Engineering and Computing**. Chalkidiki, Greece.
- 2009 Oral Presentation in **9<sup>th</sup> IEEE International Conference on Information Technology and Applications in Biomedicine**. Larnaca, Cyprus.
- 2008 Oral Presentation in **4th European Conference of the International Federation for Medical and Biological Engineering**. Antwerp, Belgium.

#### Editor in Chief

- 2003 **Brain Organoid and System Neuroscience**.

#### Editor of Conference Proceedings

- 2016 **M.A. Klados**, P.D. Bamidis and J.H. Gruzelier, **Biennial Meeting of the Society of Applied Neuroscience (SAN2016)**, Publisher: Frontiers Media SA, ISBN: 978-2-88919-993-8.
- 2011 P.D. Bamidis, **M. A. Klados**, A.B. Vivas, C. Pappas, and J.H. Gruzelier. "In **Abstracts of the 3rd Biennial Meeting of the Society of Applied Neuroscience** 5–8 May 2011, Thessaloniki, Greece.", *Neuroscience Letters*, vol. 500, p. 1. 2011

**Guest Editor on Special Issues**

- 2023 **M.A. Klados** (Lead Guest Editor), C. Frantzidis, G. Giannakakis, "**Brain Graphs and Network Neuroscience**", Brain Organoid and System Neuroscience.
- 2020 **M.A. Klados** (Lead Guest Editor), P. Arico, A. Vivas, "**Network Neuroscience: Brain Networks in the Field of Affective, Cognitive and Personality Neuroscience**", Brain Sciences
- 2020 G. Borghini, G. Di Flumeri, N. Sciaraffa, M. U. Ahmed, **M.A.Klados**, "**Deep Learning in Biomedical Informatics and Healthcare**" in Sensors
- 2020 G. Di Flumeri, **M.A.Klados**, L. Longo, A. Amzolin, "**Real-World Applications of Neurophysiological Monitoring for Passive Brain-Computer Interfaces**" in Frontiers in Human neuroscience
- 2016 **M.A. Klados** (Lead Guest Editor), J.H. Gruzelier and P.D. Bamidis, F. Babiloni, "**Applied Neuroscience: Methodology, Modeling, Theory, Applications and Reviews**", Frontiers in Human Neuroscience.

**Editorial Board of the following journals:** Journal of Psychology & Clinical Psychiatry, International Journal of Neurological Disorders & Interventions, International Journal of Psychology and Behavioral Science, Frontiers in Human Neuroscience, Frontiers in Psychology, Frontiers in Psychiatry, International Journal of Bioelectromagnetism, Frontiers in Connected Health, Signals, Brain Sciences, .

**Reviewer of the following journals:** International Journal of Psychophysiology, Biomedical Signal Processing and Control, PloS One, Journal of Psychology & Clinical Psychiatry, Clinical EEG & Neuroscience, IEEE Transactions on Biomedical Engineering, PeerJ, Frontiers in Human Neuroscience, Neuroimage, British Journal of Mathematics and Computer Science, Nature - Scientific Reports, Entropy, Neuroscience Letters, Nature – Translational Psychiatry, Acta Astronautica, Computers and Electrical Engineering and Cognitive Processing.

**Chair of the following conferences:**

- 2019 IEEE BR41N.IO BCI Hackathon (BCIH2019)
- 2016 Society of Applied Neuroscience Meeting 2016 (SAN2016)

**Organizing committee of the following conferences:**

- 2022 Society of Applied Neuroscience Meeting 2022 (SAN2022)
- 2019 IEEE International Conference on Biohealth and Biomedical Engineering (BIBE2019)
- 2019 Society of Applied Neuroscience Meeting 2019 (SAN2019)
- 2018 2nd International Conference on Brain Function Assessment and Learning (BFAL2018)
- 2014 Society of Applied Neuroscience Meeting 2014 (SAN2014)
- 2011 Society of Applied Neuroscience Meeting 2011 (SAN2011)
- 2010 The 12th Mediterranean Conference On Medical And Biological Engineering And Computing (MEDICON2010)
- 2009 6th International Conference of Aerospace Medicine (IAA 2009)

**Project Reviewer for:**

- 2020 Research and Innovation Foundation of Cyprus
- 2020 National Science Foundation (NSF)

2018, 2020                    The national science center of Poland  
2018                            The Ministry of Education, Universities and Research of Italy – PRIN call

**Professional Associations:**

- Board Member of the Society of Applied Neuroscience (SAN)
- International Brain Research Organization (IBRO)
- Fellow of Institute of Mathematics and Applications (IMA)
- Fellow of Higher Education Academy (HEA)
- Fellow of Royal Statistical Society
- Institute of Electrical and Electronics Engineers (IEEE)
- International Federation for Medical and Biological Engineering (IFMBE)
- European Alliance for Medical and Biological Engineering Science (EAMBES)
- Hellenic Society of Neuroscience (HSN)
- MENSA
- Hellenic Society of Biomedical Engineering (ELEVIT)
- Hellenic Mathematical Society (HMS)