MANOUSOS A. KLADOS
MSc, PhD, FIMA, FHEA

Dr. Manousos Klados

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WHAT STUDENTS AND COLLEAGUES SAY IN LINKEDIN

«It is my great pleasure to recommend Dr Manousos Klados. Dr Manousos was my personal tutor in my third year of university and he was able to aid me in the development of my 2nd year project involving the use of microprocessors to detect incoming falls of patients undergoing rehabilitation. When asked for help he is quick to understand and provide any help he can which in turn led to the success of my project.

I am very happy to recommend Dr Manousos Klados as both a tutor and lecturer.»

Ms. Ifeoma Nwankwo
*Biomedical Engineering Student at Aston University*

«I had Dr Klados as my lecturer for my BEng course. Dr Klados is a person who goes above and beyond in helping students think outside the box and pushes them to think in their unique way! He is definitely a passionate and a fun lecturer. I had a pleasure knowing Dr Klados!

Ms. Anam Ghuman
Biomedical Engineering Student at Aston University

ACHIEVEMENTS AT A GLANCE
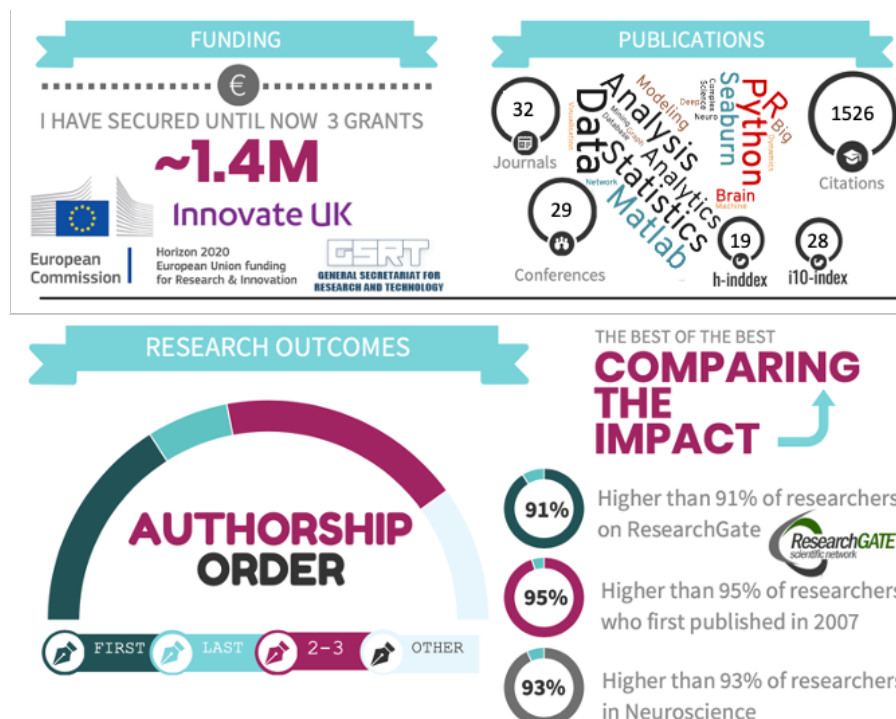
EDUCATION

2017 – 2018	**PGCert in Higher Education** Aston University, Birmingham, UK
2010 – 2014	**PhD in Medicine** Aristotle University of Thessaloniki, Thessaloniki, Greece
2013 – 2013	**Course in Computational Neuroscience** University of Washington, USA
2007 – 2009	**MSc in Medical Informatics** Aristotle University of Thessaloniki, Thessaloniki, Greece
2001 – 2007	**BSc in Mathematics** Aristotle University of Thessaloniki, Thessaloniki, Greece

CURRENT POSITION

2020– **Assoc. Professor in Psychology**
International Faculty, University of Sheffield, CITY College, GR

PI
PROJECT: HOPE – High Frequency Oscillation (HFO) in Pediatric Epilepsy
1. Design of the study
2. Development of pipelines based on wavelets to extract features of HFOs.
3. Development of dimensionality reduction algorithms.
4. Investigating the impact of various classification models, including SVMs, deep learning classifiers, CNNs in their accuracy to identify correctly pathological HFOs
5. Manage Aston team
6. Coordinate a consortium of 13 partners across the Europe.

PROJECT: Automatic recognition of Personality based only on EEG signals during emotional processing.
1. Development of explicit feature extraction of EEG signals.
2. Development and test the impact of dimensionality reduction algorithms.
3. Investigating the impact of various classification models, including SVMs, deep learning classifiers, CNN in their accuracy to predict the human personality.
4. Design develop and test the porotype of the automatic personality recognition system in real time.

PREVIOUS POSITION

2017 – 2020 **Lecturer in Biomedical Engineering**
School of Life and Health Sciences, Aston University, UK

PI
PROJECT: HOPE – High Frequency Oscillation (HFO) in Pediatric Epilepsy (EU funded: H2020-MC-RISE)
1. Design of the study
2. Development of pipelines based on wavelets to extract features of HFOs.
3. Development of dimensionality reduction algorithms.
4. Investigating the impact of various classification models, including SVMs, deep learning classifiers, CNNs in their accuracy to identify correctly pathological HFOs
5. Manage Aston team
6. Coordinate a consortium of 13 partners across the Europe.

PROJECT: Automatic recognition of Personality based only on EEG signals during emotional processing.
1. Development of explicit feature extraction of EEG signals.
2. Development and test the impact of dimensionality reduction algorithms.
3. Investigating the impact of various classification models, including SVMs, deep learning classifiers, CNN in their accuracy to predict the human personality.

4. Design develop and test the porotype of the automatic personality recognition system in real time.

2017 – 2018 **Research Consultant**
Chair of Lifespan Developmental Neuroscience, TU Dresden, Germany.

Funded by the project EMOTISK from BMBF (DE).

Advisor: **Prof. Shu-Chen Li**
PROJECT: Recognition of brain's age using brain signals (DE Funded: EMOTISK project BMBF)
1. Development of deep learning algorithms to detect brain's age using PyTorch
2. Development of deep learning regression and CNN with Keras
3. Visulisation of complex data

2016 – 2017 **Research and Teaching Fellow**
Chair of Lifespan Developmental Neuroscience, TU Dresden, Germany

Advisor: **Prof. Shu-Chen Li**
PROJECT: Recognition of brain's age using brain signals (DE Funded: EMOTISK project BMBF)
1. Development of machine learning algorithms to detect brain's age
2. Validation of the aforementioned algorithms in healthy subjects
3. Test the aforementioned algorithms in demented elders.
PROJECT: Model-based and Model-free reinforcement learning (DE Funded: SFB940 by DFG)
1. Development of a maze task based on temporal difference algorithm
2. Compare the performance of the model with actual data from young and older adults.

2014 – 2016 **Postdoctoral Fellow**
Max Planck Institute for Human Cognitive and Brain Sciences, Germany

Advisor: **Dr. Daniel Margulies**
PROJECT: Functional Connectivity, and their variance across the subjects
1. Phenotypic connectivity maps for personality traits
2. Diffusion mapping and Spectral Graph Theory
3. Classification of BA44/45 based on functional connectivity
4. Development of various algorithm for the processing of fMRI signals
PROJECT: Automatic parcellation of Broca's areas 44 and 45 based on connectivity and structural data
1. Feature selection for the better description of the different connectivity profiles of Broca's 44 and 45
2. Classification using deep learning classifiers and CNN based only on connectivity vectors
(As PI)

PROJECT: Modeling the cerebellar connectome
1. Parcellation of cerebellum.
2. Deep learning hierarchical clustering
3. Graph theoretical approaches
4. New metrics based on information theory in order to compute the functional couplings

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2013 – 2015   # CEO/PI
Neurofeedback Center of Northern Greece, Greece

(As PI)
PROJECT: The impact of Intracranial light stimulation in the geriatric depression
1. Review of geriatric depression literature
2. Design, development and implementation of the study
3. Processing of EEG signals and extraction of depression related biomarkers mostly based on connectivity profiles using machine learning and data mining techniques
4. Assessment of the intervention
5. Administrative duties
6. Managerial tasks

2012 – 2014   # Research Assistant
Lab of Medical Physics, Aristotle University of Thessaloniki

Advisor: **Prof. Panagiotis Bamidis**
PROJECT: Multidimensional Research In Affective Computing For The Recognition Of Emotional, Physiological And Biological Activities In Assistive Environments.
1. Study the various models of emotional processing
2. Review literature for new machine learning approaches.
3. Emotional recognition based on EEG signals and connectivity maps
4. Classification strategies for better classification accuracy

PROJECT: Unobtrusive Smart Environments For Independent Living
1. Emotion detection using wearable EEG sensor and functional connectivity maps
2. Development of data fusion framework.
3. Multivariate statistical models.
4. Design and develop python scripts for classification of dangerous events.

PROJECT: The neurobiological base of math anxiety (PhD)
1. Review the literature of anxiety and math anxiety
2. Study the Attentional Control Theory
3. Design and implement the experiments
4. Design and implement the analysis. This part combines a lot of signal processing, stochastic signal processing, multivariate modeling, pattern detection and machine learning.
5. Develop algorithms to identify mathematical anxiety as well as it's severity using EEG signals.
6. Propose neurofeedback-based solution to reinforce math anxious students.
7. Present the results in international conferences and journals

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SCIENTIFIC ACTIVITIES

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

2011 – 2011	**Research Assistant**
	Computer Science Department, University of Cyprus, Cyprus

Advisor: **Prof. Constantinos Pattichis**
PROJECT: Long Lasting Memories
1. Functional Connectivity analysis of EEG signals for the various groups of interventions

2007 – 2010	**Research Assistant**
	Lab of Medical Informatics, Aristotle University of Thessaloniki

Advisor: **Prof. Panagiotis Bamidis**
PROJECT: Long Lasting Memories
1. Design and development of the study
2. Run EEG trials
3. Development of the pre-processing pipeline for the EEG data
PROJECT: Extended Mediterranean network of educational resources for higher and continuing medical education

TEACHING

2020 –	**Introduction in Research Methods in Clinical Neuropsychology (CPY6125)**
	Module Leader
	MSc in Clinical Neuropsychology, International Faculty of the University of Sheffield, CITY College
2020 –	**Fundamentals of Neuropsychology (CPY6124)**
	Module Leader
	MSc in Clinical Neuropsychology, International Faculty of the University of Sheffield, CITY College
2020 –	**Introduction in Research Methods in Counseling Psychology (CPY6123)**
	Module Leader
	MSc in Counselling Psychology, International Faculty of the University of Sheffield, CITY College
2020 –	**Psychological Research Methods (CPY2229)**
	Module Leader
	BSc in Psychology, International Faculty of the University of Sheffield, CITY College

🖊 Frontiers in Psychology

🖊 Frontiers in Psychiatry

🖊 International Journal of Bioelectromagnetism

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

Chair of the following conferences:

🖊 IEEE BR41N.IO BCI Hackathon (BCIH2019)

🖊 Society of Applied Neuroscience Meeting 2016 (SAN2016)

Organizing committee of the following conferences:

🖊 IEEE International Conference on Biohealth and Biomedical Engineering 2019 (BIBE2019)

🖊 Society of Applied Neuroscience Meeting 2019 (SAN2019)

🖊 2nd International Conference on Brain Function Assessment and Learning (BFAL2018)

🖊 Society of Applied Neuroscience Meeting 2014 (SAN2014)

2020 –

Discovering Science (CPY1103)

Module Leader

BSc in Psychology, International Faculty of the University of Sheffield, CITY College

2020 –

Research Methods in Counseling Psychology (CPY6108)

Module Leader

MSc in Counselling Psychology, International Faculty of the University of Sheffield, CITY College

2017 – 2020

Software Engineering (BE1SE1)

Module Leader

BEng/MEng in Biomedical Engineering, Aston University, UK

2017 – 2020

Medical Imaging (BE3IM1)

Module Leader

BEng/MEng in Biomedical Engineering, Aston University, UK

2016 – 2017

EEG Signal Processing

Module Leader

MSc in Cognitive and Affective Neuroscience, TU Dresden Germany

2013 – 2014

Biological Networks

Core Instructor

MSc in Complex Systems and Networks, Aristotle University of Thessaloniki, Greece

2012 – 2012

Biological Networks

Teaching Assistant

MSc in Complex Systems and Networks, Aristotle University of Thessaloniki, Greece

2010 – 2012

Brain Functional Connectivity

Teaching Assistant

MSc in Medical Informatics, Aristotle University of Thessaloniki, Greece

2008 – 2013

EEG Signal Processing

Teaching Assistant

MSc in Medical Informatics, Aristotle University of Thessaloniki, Greece

2008 – 2013

Medical Informatics

Head Lab Tutor

BSc in Medicine and Dentistry, Aristotle University of Thessaloniki, Greece

FUNDING

2019 – 2023

HOPE - (PI/Coordinator)

1.23M€

Funded by the EU under the H2020-MC-RISE scheme (No: 823958).

Aston University, UK

2018 – 2021

OPTIMEC - (co-I).

234.000₤

Funded by the Innovate UK under the Knowledge Transfer Partnership.

Aston University, UK

2014 – 2016

Personal Grant - (PI)

64.000€

Funded by the Max Planck Society for my postdoctoral research

Max Planck Institute of Human Cognitive and Brain Science, Germany

2013 – 2015

NEUROFOS - (PI)

87.000€

Funded by the General Secretariat of Research and Technology of Greek Government.

Neurofeedback Center of Northern Greece, Greece

2012 – 2012

Scholarship

4.000€

Scholarship for research excellence by the Aristotle University of Thessaloniki.

Aristotle University of Thessaloniki, Greece

2007 – 2009

EPEAK fellow

4.000€

Scholarship for my studies in the MSc in Medical Informatics by the Greek Ministry Of Education And Religion.

Aristotle University of Thessaloniki, Greece

AWARDS

2013

Award

Certification of recognition for my publication entitled "Towards A Graph Theoretical Approach To Study Gender Lateralization Effect In

Skills (left column)

fMRI

MRI

fNIRS

METHODOLOGIES

CONNECTIVITY

DYNAMIC CONN.

MACHINE LEARNING

DATA MINING

ERP/ERO/ERDS

TIME-FREQUENCY

ARTIFACT REJECTION

CDR

MICROSTATES

COMPUTATIONAL

C/C++/C#

.NET

PHP-SQL

HTML5/JAVASCRIPT

PYTHON

FORTRAN

MATLAB

R

BRAINSTORM

EEGLAB

KERAS

PYTORCH

BRAINGL

PRESENTATION

E-PRIME

WEKA

NEUROSKY API

EMOTIV API

MATHEMATICAL

MULT. STAT.

LATENT VAR. MOD.

GRAPH THEORY

SPEC. GRAPH TH.

MODELING

WAVELETS

PERSONAL

COMMUNICATION

ORGANIZATION

TEAM MANAGEM.

PROBLEM SOLVING

Right column

Mathematical Thinking" in IEEE 12th International Conference On Bioinformatics And Bioengineering

2010 Distinction

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 Award

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 Award

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

GUEST EDITOR IN SPECIAL ISSUES

1. **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.
2. **M.A. Klados (Lead Guest Editor)**, J.H. Gruzelier and P.D. Bamidis , "**Applied Neuroscience: Methodology, Modeling, Theory, Applications and Reviews**", Frontiers in Human Neuroscience (Accepted).
3. **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
4. 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.

PEER-REVIEWED INTERNATIONAL JOURNALS
(*Equal Contribution **Senior Author)

1. 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.
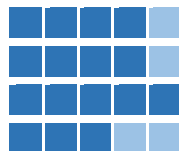
2. Mortaheb, S., **Klados, M. A.,** Van Calster, L., Boulakis, P. A., Georgoula, K., Majerus, S., & Demertzi, A. (2021). **Mind blanking is associated with a rigid spatio-temporal profile in typical wakefulness.** bioRxiv.

3. Anagnostopoulou, A., Styliadis, C., Kartsidis, P., Romanopoulou, E., Zilidou, V., Karali, C., Karagianni, M., **Klados, M.,** Paraskevopoulos, E., Bamidis, P. D. (2021). **Computerized physical and cognitive training improves the functional architecture of the brain in adults with Down Syndrome: a network science EEG study.** Network Neuroscience (5) 1. https://doi.org/10.1162/netn_a_00177

4. **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

5. 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

6. 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., Sterman, 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

7. **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

8. **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

9. Ros, T., Enriquez-Geppert, S., Zotev, V., Young, K., Wood, G., Whitfield-Gabrieli, S., … Thibault, R. T. (2019, January 23). **Consensus on the reporting and experimental design of clinical and cognitive-behavioural neurofeedback studies** (CRED-nf checklist). https://doi.org/10.31234/osf.io/nyx84

10. 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

11. 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

12. 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

13. **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

14. **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

15. 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

16. **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

17. 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

18. **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

19. **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

20. 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 amnestic Mild Cognitive Impairment: an EEG study using Relative Wavelet Entropy (RWE)**. Frontiers in Aging Neuroscience, 6. http://doi.org/10.3389/fnagi.2014.00224

21. **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

22. 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

23. **Klados, M. A.**, Kanatsouli, K., Antoniou, I., Babiloni, F., Tsirka, 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

24. 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

25. 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

26. 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).

27. **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

28. 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

29. 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

30. **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

31. 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

32. 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

33. 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

34. **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 COFERENCES 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

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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

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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

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

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(Co-) Supervision of Students

PhD Students

2019 –	**Matthew Fenech.** Automatic Detection of High Frequency Oscillations.
	Aston University, UK
2018 –	**Fabio Barolo.** Modeling of EMG artifacts in the scalp using Finite Element Modelling.
	Aston University, UK

MSc/Meng Students

2021 – 2022	**2 MSc Students,** MSc in Clinical Neuropsychology, University of York Europe Campus, CITY College, Thessaloniki, Greece.
2020 – 2021	**5 MSc Students,** MSc in Counselling Psychology/ MSc in Clinical Neuropsychology, The International Faculty of the University of Sheffield, CITY College, Thessaloniki, Greece.
2018 – 2019	**Vasiliki-Despoina Kostaridou.** Understanding the role of personality in emodiversity and their neurophysiological correlates: an EEG study.
	MSc in Cognitive Neuroscience, Aston University, UK

2015 – 2017	**Vasilios Pezoulas.** The connectivity of cerebellum and it's relation to human intelligence.
	MSc in Signal Processing, Technical University of Crete, Greece
2015 – 2016	**Agni Pourika.** The inter-idependence index as a metric in brain functional connectivity.
	MSc in Complex Systems and Networks, Aristotle University of Thessaloniki, Greece
2015 – 2016	**Maria Grigoriadou.** Brain networks during mathematical cognition.
	MSc in Complex Systems and Networks, Aristotle University of Thessaloniki, Greece

BSc/BEng Students

2021 – 2022	**4 BSc Students,** BSc in Psychology, The International Faculty of the University of Sheffield, CITY College, Thessaloniki, Greece.
2020 – 2021	**6 BSc Students,** BSc in Psychology, The International Faculty of the University of Sheffield,
2017 – 2018	**Natasha Rupansinghe.** Wireless and wearable GSR device for monitoring the ANS.
	BEng in Biomedical Engineering, Aston University, UK
2017 – 2018	**Cory Thomas.** Wireless and wearable EEG system for the control of a wheelchair
	BEng in Biomedical Engineering, Aston University, UK Aston University, UK
2017 – 2018	**Panagiota Konstantinidi.** Recognising human personality from EEG signals,
	BEng in Electronic and Electrical Engineering, Technical University of Crete, Greece

	Erasmus Students
2019	**Georgios Klados.** Prediction of imposed deficits by neurosurgery.
	BEng in Electronic and Electrical Engineering, Technical University of Crete, Greece
2018	**Panagiota Konstantinidi.** Recognising human personality from EEG signals.
	BEng in Electronic and Electrical Engineering, Technical University of Crete, Greece

Invited Talks	
2021	Invited online interview from **Neurogenesis**. Applied Neuroscience Club in Greece.
2021	Invited Lecture in **Personality Neuroscience.** University of Liege**,** Liege, Belgium

2019	Invited Keynote speaker at «**Out of the Lab employment of Neurophysiological measures: clinical applications and beyond**» Workshop. University of Sapienza, Rome, Italy
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 **30th 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 **26th IEEE International Symposium on Computer-Based Medical Systems (CBMS)**. Porto, Portugal.
2013	Oral Presentation in **12th 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 **9th 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.

Invited Guest Editor in Special Issues

2020	**Deep Learning in Biomedical Informatics and Healthcare** in Sensors
2020	**Real-World Applications of Neurophysiological Monitoring for Passive Brain-Computer Interfaces** in Frontiers in Human neuroscience