

Styliadis Charis

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Narrative report

I am a biomedical engineer and a postdoctoral researcher at the Lab of Medical Physics & Digital Innovation of the Aristotle University of Thessaloniki (AUTH) in charge of a clinical trial concerning cortical plasticity (MS-NEUROPLAST) in Multiple Sclerosis. I completed my BEng in Electronic Engineering with Medical Electronics at the University of Kent, UK, and my MSc in Telecommunications and Computer Network Engineering at South Bank University, UK. Following this, I completed my Ph.D. at the Medical School of AUTH, specializing in emotional and cognitive neuroscience and magneto-/electroencephalography (MEG/EEG). I have received training in MEG technology at the laboratory for Human Brain Dynamics, RIKEN, BSI, in Japan. In 2020, I received a post-doctoral research fellowship from the Hellenic Foundation for Research and Innovation (HFRI). My research interests focus on emotional processing, cognitive aging, developmental and degenerative disorders, and training-induced cortical plasticity, while I use MEG and EEG as my main research tools. I have a demonstrated record of accomplished and productive research projects in affective and cognitive neuroscience, funded by the European Union and the General Secretariat for Research & Technology, leading to 26 peer-reviewed articles in scientific journals, such as NeuroImage, Human Brain Mapping, Cerebral Cortex, and Network Neuroscience. I have also published 2 book chapters and more than 40 contributions to international conferences with posters and oral presentations, while a figure of my work has been selected as the cover for a high-impact scientific journal.

Education

2019-present Post-Doc in Medicine

School of Medicine, Faculty of Health Sciences, AUTH, Greece

Title: Cognitive decline prognosis in multiple sclerosis: effectiveness of a computerized cognitive training treatment on cortical reorganization

Supervisor: Panagiotis Bamidis

2011-2015 Ph.D. in Medicine

School of Medicine, Faculty of Health Sciences, AUTH, Greece

Thesis: Spatiotemporal analysis of the emotional processing in healthy and pathologic elderly individuals who have undergone cognitive and physical training

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Supervisor: Panagiotis Bamidis

2000-2002 MSc in Telecommunications & Computer Network Engineering

School of Electrical, Electronic & Information Engineering, South Bank University, UK

MSc Project: Investigations into bandwidth restriction and data transfer rates of Asymmetric Digital Subscriber Lines (ADSL)

1997-2000 BEng in Electronic Engineering with Medical Electronics

School of Electrical & Electronic Engineering, University of Kent, UK

BEng Project: Nasal Anemometer. Development of a clinical instrument for use in speech therapy

Research experience

2016-present Postdoctoral Research Associate

Medical Physics & Digital Innovation Lab, School of Medicine, Faculty of Health Sciences, AUTH

Main activities and responsibilities:

- **Basic/Applied Neuroscience**

- Training-induced plasticity (cortical reorganization) in Developmental (Down's

- Syndrome) and Degenerative (Multiple Sclerosis & Parkinson's Disease) disorders
- Member of the Human Affectome Project team aiming to develop an integrated, holistic model for human emotion
- Emotional face processing of adolescents with Autism Spectrum Disorder (ASD) in collaboration with Boston's Children's Hospital, USA, and Hospital for Sick Children, Canada
- **Clinical Neuroscience**
- Validating reward-related biomarkers to facilitate the development of new treatments for anhedonia and reward processing deficits in schizophrenia and major depressive disorder

2012-2015

Research Associate/Co-Investigator

Medical Physics Laboratory, School of Medicine, Faculty of Health Sciences, AUTH

Main activities and responsibilities:

- Emotional processing in healthy aging and MCI patients
- Indices of training-induced plasticity in MCI patients following combined computerized physical and cognitive training

2008-2012

Research Associate/Investigator

Lab of Medical Informatics, School of Medicine, Faculty of Health Sciences, AUTH

Main activities and responsibilities:

- Emotional processing in healthy adults
- Spatiotemporal MEG analysis

2007-2008

Visiting Technician

Laboratory for Human Brain Dynamics, Brain Science Institute (BSI), Institute of Chemical and Physical Research (RIKEN), Saitama, Japan

Main activities and responsibilities:

- Education in MEG methods and applications using a 151-channel CTF whole-head MEG system (VSM MedTech Ltd.)
- Use of 3D Head and Electrode Digitizer (Fastrack Polemic) for registration
- MEG data collection

2006-2007

Research Associate

Lab of Medical Informatics, School of Medicine, Faculty of Health Sciences, AUTH

Main activities and responsibilities:

- Education in EEG methods and applications

Teaching experience

2022-present External Teaching Associate

Medical Engineering and Informatics, Inter-Faculty, AUTH

Biomedical Signals

Lecture: Spatiotemporal M/EEG analysis

Level: Post-Graduate

Duration: 2 hours

Supervisor: Ioanna Chouvarda

2021-2022 Lab Demonstrator

Medical Physics (MD1002), School of Medicine, Faculty of Health Sciences, AUTH

Labs: Thermistor, ECG

Level: Graduate

Duration: 2 hours

Supervisors: Panagiotis Bamidis, Emmanouil Papanastasiou

2020-2021 Guest Lecturing

Learning Technologies - Education Sciences, Inter-Faculty, AUTH

Affective computing and learning

Lecture: Affective Neuroimaging

		<p>Level: Post-Graduate Duration: 2 hours Supervisor: Panagiotis Bamidis</p>
2018-present	Guest Lecturing	<p>Networks and Complexity, Inter-Faculty, AUTH Life Networks and Geo-ecological Systems Lecture: Spatiotemporal M/EEG analysis Level: Post-Graduate Duration: 2 hours Supervisor: Panagiotis Bamidis</p>
2017-2022	Guest Lecturing	<p>Medical Informatics, Inter-Faculty, AUTH Biomedical signal processing (IIIB004) Lecture: Spatiotemporal M/EEG analysis Level: Post-Graduate Duration: 2 hours Supervisor: Anthony Aletras</p>
2017-2018	Fellow Lecturer	<p>Introduction to Biomedical Technology (IAO263), School of Medicine, Faculty of Health Sciences, AUTH Lectures: Biomedical technology and the role of the biomedical engineer; Neurophysiology and encephalography; Brain-computer interfaces; Neurofeedback; Affective computing; Physiology of the heart and electrocardiography; Biomedical signal processing; Medical imaging; Biomedical Technologies for Elderly Care; Multidisciplinary tools for smoking cessation; Neuroimaging and Nanoscience Level: Undergraduate Duration: 1 semester</p>
2014-present	Guest Lecturing	<p>Nanosciences & Nanotechnologies, Inter-Faculty, AUTH Bioelectronics and Bioinformatics (NNY301) Lectures: Neuroimaging and Nanoscience & Hierarchical organization & imaging of the brain: From neurons to macroscopic regions of the brain Level: Post-Graduate Duration: 2 hours Supervisor: Panagiotis Bamidis</p>
2014-2018	Guest Lecturing	<p>Complex Systems and Networks, Inter-Faculty, AUTH Life Networks and Geo-ecological Systems Lecture: Spatiotemporal M/EEG analysis Level: Post-Graduate Duration: 2 hours Supervisors: Ioannis Antoniou, Panagiotis Bamidis</p>
2008-2013	Lab Demonstrator	<p>Medical Informatics I (IA0276), School of Medicine, Faculty of Health Sciences, AUTH Labs: Microsoft Office Suite. Biomedical Data and the Computer, Medical and Health patient Record, Medical Information and Internet Level: Graduate Duration 2008-2009: 20 hours Duration 2010-2011: 12 hours Duration 2011-2012: 12 hours Duration 2012-2013: 24 hours Supervisors: Costas Pappas, Nikolaos Maglaveras</p>

2008-2009 Lab Demonstrator

Dental Informatics Applications (100202S), School of Dentistry, Faculty of Health Sciences, AUTH

Labs: Familiarity with modern dental information search and retrieval systems, Applications for Dental Practice Management

Level: Graduate

Duration: 8 hours

Supervisor: Costas Pappas

Professional experience in the private sector

2004-2005 Engineer of biomedical technology

N. Papapostolou LTD, Medical Equipment Center, Thessaloniki, Greece

Military service

2003-2004 Sergeant of Supply and Transportation Directorate

Hellenic army

Funding

2020-2023 Hellenic Foundation for Research and Innovation (H.F.R.I.), 2nd Call for H.F.R.I. Research Projects to Support Post-Doctoral Researchers

3rd in ranking for Engineering Sciences & Technology scientific area ([Proposal #314](#))

Acronym: **MS-NEUROPLAST**

Project Description: Cognitive decline prognosis in multiple sclerosis: effectiveness of a computerized cognitive training treatment on cortical reorganization

Project's objectives:

- (i) The in-depth understanding of the neural indices of cognitive impairment in PwMS (i.e., identify decline transition points along the continuum of cognitive capacity).
- (ii) To dissociate the cortical mechanisms related to training-induced plasticity from those related to maladaptive reorganization due to MS (namely separate good from the bad), by examining whether the correlation of the neurophysiological and cognitive indices with longitudinal ecologically valid measures of daily activities can capture the underlying pathology.
- (iii) To evaluate the efficacy of a computerized cognitive training treatment for MS-associated cognitive deficits via the dissociation of the cortical mechanisms related to training-induced plasticity from those related to maladaptive reorganization due to MS.

Role: PI

2019-2022 European Commission, Information Society, and Media Directorate-General, HORIZON 2020

Acronym: **HOPE**

Project Description: Automatic detection and localization of High-Frequency Oscillation (HFOs) in Paediatric Epilepsy

Project's objective: HOPE aims to optimize the detection and quantification of high frequency (>80Hz) brain electromagnetic activity using non-invasive techniques (MEG and EEG) for the pre-surgical diagnosis of epilepsy and in particular for the best possible detection of the epileptogenic zone of medically refractory epilepsy

Role: Deputy Principal Investigator - Responsible for the collection of the EEG data recorded from epilepsy patients in experimental (sleep deprivation) and clinical (operating room before surgery and during anesthesia) settings and detection and localization of HFOs (PIs: Klados Manousos, Panagiotis Bamidis)

2019-2021 Private funding

Acronym: **RTOC**

Project Description: Validating reward-related biomarkers to facilitate the development of new treatments for anhedonia and reward processing deficits in schizophrenia and major depressive disorder

Project's objective: The project aims to qualify a battery of tasks measuring different reward processing domains to support drug development. By conducting early-stage development and validation of reward processing tasks, the goal is to develop paradigms that are used in experimental medicine and/or larger clinical trials. This is a multi-center European software deployment trial study, which focuses on major Depression and Schizophrenia populations. It is supported by members of the [ECNP Experimental Medicines Network](#)

Role: Co-Investigator - Responsible for the lab's accreditation as an EEG center and the collection of the EEG data (PIs: Anja Hayen, Amy Bilderbeck, Georgios Papazisis)

2016-2022

Neuroqualia

Acronym: [Human Affectome Project](#)

Project Description: A global multidisciplinary collaboration in affective neuroscience to advance our understanding of human feelings, motivations, and related behaviors

Project's objective: This project aims to develop an integrated, holistic model for human emotion

Role: Co-Investigator - Member of the 'Happiness' taskforce (PIs: Rebecca Levin Silton, Leroy Lowe)

2015-2018

European Commission, Information Society, and Media Directorate-General, HORIZON 2020

Acronym: [SmokeFreeBrain](#)

Project Description: Multidisciplinary tools for improving the efficacy of public prevention measures against smoking

Project's objective: SmokeFreeBrain aimed to address the effectiveness of a multi-level variety of interventions for smoking cessation in high-risk target groups

Role: Coordinator of pharmacological intervention (PI: Panagiotis Bamidis)

2012-2015

General Secretariat for Research & Technology, Reinforcement of the interdisciplinary and/or inter-institutional research and innovation THALES

Acronym: [STHENOS](#)

Project Description: Interdisciplinary research in affective computing for biological activity recognition in assistive environments

Project's objective: This project aimed at the development of pervasive human-centered systems with the ability to understand the human state in assistive environments using audiovisual and biological signals to enable an interaction mainly based on synthetic audiovisual information

Role: Co-Investigator - Responsible for the analysis and interpretation of the EEG data for the neuroscientific approach to affective computing (PI: Ilias Maglogiannis)

2009-2012

European Commission, Information Society, and Media Directorate-General

Acronym: [LLM](#) (Long Lasting Memories)

Project Description: Develop and evaluate a unified solution for cognitive and physical health and the independent living of elder people

Project's objective: This project aimed in investigating the training-induced plasticity in healthy and pathological (mild cognitive impairment) aging as a result of physical exercise occurring in the context of cognitive challenges and correlating the cortical activations to indices of wellbeing (i.e., emotion)

Role: Co-Investigator - Responsible for the analysis and interpretation of the EEG data recorded from cognitively healthy and cognitively impaired elderly (PI: Panagiotis Bamidis)

2006-2008

General Secretariat for Research & Technology, Transnational collaboration between Greece and Japan

Acronym: [AFFECTION](#)

Project's description: Multichannel physiological measurements for the adaptation of the human-computer interface using emotions-induced experimental paradigms

Project's objective: This project aimed at the spatiotemporal investigation with MEG and EEG of emotional processing in human healthy adults while passively viewing affective pictorial stimuli

Role: Investigator - Responsible for the collection, analysis, and interpretation of the MEG data
(PI: Panagiotis Bamidis)

Co-authoring of other funded projects

INADVANCE: Patient-centred pathways of early palliative care, supportive ecosystems, and appraisal standard. H2020-EU.3.1.3. - Treating and managing disease

Relief: Recovering life Wellbeing through Pain self-management Techniques involving ICT. H2020-EU.3.1.4. - Active ageing and self-management of health

Captain: Coach Assistant via Projected and Tangible Interface. H2020-EU.3.1.4. - Active ageing and self-management of health

Currently unfunded projects

2016-present Affective Cerebellum - Personal Collaboration

Project's description: Research on emotional face processing of adolescents with autism spectrum disorder (ASD) in collaboration with Boston's Children's Hospital, USA, and Hospital for Sick Children, Canada

Project's objective: This project investigates the role of cerebellar abnormalities in emotional dysfunction in ASD

Role: Co-Investigator - Responsible for the analysis and interpretation of the MEG data recorded from the ASD adolescents (PIs: Christos Papadelis, Margot Taylor)

2016-present LifeSpanNeuroPlasticity

Project's description: The evolution of neuroplasticity in Developmental (Down's Syndrome) and Degenerative (Parkinson's Disease) disorders and its relation to cognitive capacity

Project's objective: This project aims at training-induced (cognitive and/or physical) plasticity for patients with Developmental (Down Syndrome) and Degenerative (Parkinson's disease) disorders

Role: Co-Investigator - Responsible for the collection, analysis, and interpretation of the EEG data recorded from the pathological populations (PI: Panagiotis Bamidis)

Publications in peer-reviewed journals

[Google Scholar](#) citation count (24/10/2022): 1244; h-index: 14

[Scopus](#) citation count (24/10/2022): 758; h-index: 10

Total impact factor (IF): 84.96

2022

1. Schiller, D., Yu, A. N. C., Alia-Klein, N., Becker, S., Cromwell, H. C., Dolcos, F., ... Styliadis, C., ... Lowe, L. (2022, June 11). The Human Affectome. <https://doi.org/10.31234/osf.io/9nu32>
2. Pandria, N., Athanasiou, A., Papazisis, G., **Styliadis**, C., Zidiridis, C., Bamidis, P.D., Kaprinis, S. Exploring gender-related differences in smoking cessation motivation during COVID-19 pandemic. BMC Public Health (Under review)
3. Xefteris, V. R., **Styliadis**, C., Anagnostopoulou, A., Kartsidis, P., Paraskevopoulos, E., Klados, M., ... & Bamidis, P. (2020). Computerized physical exercise triggers protective neuroplastic reorganization of large-scale cortical networks in patients with Parkinson's Disease: a resting-state EEG study. (Under review) Presubmitted at medRxiv. <https://doi.org/10.1101/2020.10.21.20209502>
4. Pandria, N., Athanasiou, A., **Styliadis**, C., Terzopoulos, N., Mitsopoulos, K., Paraskevopoulos,

E., Karagianni, M., Pataka, A., Kourtidou-Papadeli, C., Makedou, K., Iliadis, S., Lymeraki, E., Bamidis, P. Does combined training of biofeedback and neurofeedback affect smoking status, behavior and longitudinal brain plasticity? Behavioural Neurology (Under review).

2021

5. **Styliadis, C.**, Leung, R., Özcan, S., Moulton, E. A., Pang, E., Taylor, M. J., Papadelis, C. (2021). Atypical spatiotemporal activation of cerebellar lobules during emotional face processing in adolescents with autism. *Human brain mapping*, 42(7), 2099-2114.
<https://doi.org/10.1002/hbm.25349> IF: 4.554
6. 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), 274-294. IF: 4.64
https://doi.org/10.1162/netn_a_00177 *joint first authorship. Presubmitted at medRxiv.
<https://doi.org/10.1101/2020.05.28.20115709>
7. Paraskevopoulos, E., Chalas, N., Karagiorgis, A., Karagianni, M., **Styliadis, C.**, Papadelis, G., & Bamidis, P. (2021). Aging Effects on the Neuroplastic Attributes of Multisensory Cortical Networks as Triggered by a Computerized Music Reading Training Intervention. *Cerebral Cortex*, 31(1), 123-137. <https://doi.org/10.1093/cercor/bhaa213> IF: 5.043
8. Pataka, A., Frantidis, C., Nday, C., Nigdelis, V., Konstantara, L., Chriskos, P., ... **Styliadis, C.**, Paraskevopoulos, E., Kourtidou-Papadeli, C., Bamidis, P. Varenicline administration for Smoking Cessation may reduce apnea hypopnea index in sleep apnea patients. *Sleep Medicine*. IF: 3.492
9. Boziki, M., **Styliadis, C.**, Bakirtzis, C., Grigoriadou, E., Sintila, A.-S., Nikolaidis, I., Vrienniou A., Geys, L., Pelidou, S.-H., Probert, L., Papazisis, G., Bamidis, P., Grigoriadis N. (2021) A National Representative, Cross-Sectional Study by the Hellenic Academy of NeuroImmunology (HEL.A.NI.) on COVID-19 and Multiple Sclerosis: Overall Impact and Willingness Toward Vaccination. *Front. Neurol.* 12:757038. <https://doi.org/10.3389/fneur.2021.757038> IF: 4.003

2020

10. Alexander, R., Aragón, O. R., Bookwala, J., Cherbuin, N., Gatt, J. M., Kahrilas, I. J., ... & Styliadis, C. (2020). The Neuroscience of Positive Emotions and Affect: Implications for Cultivating Happiness and Wellbeing. *Neuroscience & Biobehavioral Reviews*. 121, 220-249.
<https://doi.org/10.1016/j.neubiorev.2020.12.002> IF: 8.330

2019

11. Luna-Perejon, F., Malwade, S., **Styliadis, C.**, Civit, J., Cascado-Caballero, D., Konstantinidis, E., ... & Li, Y. C. (2019). Evaluation of user satisfaction and usability of a mobile app for smoking cessation. *Computer Methods and Programs in Biomedicine*, 105042.
<https://doi.org/10.1016/j.cmpb.2019.105042> IF: 3.632
12. Pataka, A., Frantidis, C., Nday, C., Nigdelis, V., Konstantara, L., Chriskos, P., ... **Styliadis, C.**, Paraskevopoulos, E., Kourtidou-Papadeli, C., Bamidis, P. (2019). Polysomnographic changes after varenicline administration for smoking cessation. *ERJ Open Research* 2019 5: P156.
<https://doi.org/10.1183/23120541.sleepandbreathing-2019.P156> IF: 2.6

2018

13. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2018). Mapping the Spatiotemporal Evolution of Emotional Processing: An MEG Study Across Arousal and Valence Dimensions. *Frontiers in human neuroscience*, 12, 322. <https://doi.org/10.3389/fnhum.2018.00322>. IF: 2.871
14. Athanasiou, A., Klados, M. A., **Styliadis, C.**, Foroglou, N., Polyzoidis, K., Bamidis, P. D. (2018). Investigating the role of alpha and beta rhythms in functional motor networks. *Neuroscience*, 378, 54-70. <https://doi.org/10.1016/j.neuroscience.2016.05.044> IF: 3.382
15. Pandria, N., Athanasiou, A., Terzopoulos, N., Paraskevopoulos, E., Karagianni, M., **Styliadis, C.**, Kourtidou-Papadeli, C, Pataka, A., Lymeraki, A., Bamidis, P. D. (2018). Exploring the neuroplastic effects of biofeedback training on smokers. *Behavioural neurology*.
<https://doi.org/10.1155/2018/4876287> IF: 1.311

2017

16. Adamaszek, M., D'Agata, F., Ferrucci, R., Habas, C., Keulen, S., Kirkby, K. C., ... & **Styliadis, C.**, Verhoeven, J. (2017). Consensus Paper: Cerebellum and Emotion. *The Cerebellum*, 1-25. <https://doi.org/10.1007/s12311-016-0815-8> IF: 3.199

2016

17. Klados, M.A.*, **Styliadis, C.***, Frantzidis C.A., Paraskevopoulos, E., Bamidis, P. D. (2016). Beta – band functional connectivity is re-organized in MCI after combined computerized physical and cognitive training. *Frontiers in Neuroscience*, 10, 55. <https://doi.org/10.3389/fnins.2016.00055> *joint first authorship. IF: 3.568

2015

18. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2015). Distinct cerebellar lobules process arousal, valence and their interaction in parallel following a temporal hierarchy. *NeuroImage*. 110, 149-161. <https://doi.org/10.1016/j.neuroimage.2015.02.006> IF: 5.463
19. **Styliadis, C.***, Kartsidis, P.*., Paraskevopoulos, E., Ioannides, A., Bamidis, P. D. (2015). Neuroplastic Effects of Combined Computerized Physical and Cognitive Training in Elderly Individuals at Risk for Dementia: An eLORETA Controlled Study on Resting States. *Neural Plasticity*, <http://dx.doi.org/10.1155/2015/172192> *joint first authorship. IF: 3.566

2014

20. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2014). Amygdala responses to valence and its interaction by arousal revealed by MEG. *International Journal of Psychophysiology*, 93(1), 121-33. <https://doi.org/10.1016/j.ijpsycho.2013.05.006> IF: 2.882
21. Bamidis, P. D., Vivas, A. B., **Styliadis, C.**, Frantzidis, C., Klados, M., Schlee, W., Siountas, A, Papageorgiou, S. G. (2014). A review of physical and cognitive interventions in aging. *Neuroscience & Biobehavioral Reviews*, 44, 206-20. <https://doi.org/10.1016/j.neubiorev.2014.03.019> IF: 8.802

2013

22. **Styliadis, C.**, Papadelis, C., Konstantinidis, E., Ioannides, A. A., Bamidis, P. (2013). An MEG compatible system for measuring skin conductance responses. *Journal of neuroscience methods*, 212(1), 114-123. <https://doi.org/10.1016/j.jneumeth.2012.09.026> IF: 2.025

2011

23. Vassilicos, V., Dakos, G., Chatzizisis, Y. S., Chouvarda, I., Karvounis, C., Maynard, C., Maglaveras, N., Paraskevaidis, S., Stavropoulos, G., **Styliadis, C.** I., Mochlas, S., Styliadis, I. (2011). Novel non-invasive P wave analysis for the prediction of paroxysmal atrial fibrillation recurrences in patients without structural heart disease: a prospective pilot study. *International Journal of Cardiology*, 153(2), 165-172. <https://doi.org/10.1016/j.ijcard.2010.08.029> IF: 7.078
24. Pechlivanidis, G., Mantziari, L., Giannakoulas, G., Dimitroula, H., **Styliadis, H.**, Karvounis, H., Styliadis, I. H., Parharidis, G. (2011). Effects of renin-angiotensin system inhibition on right ventricular function in patients with mild essential hypertension. *Journal of Renin-Angiotensin-Aldosterone System*, 12(3), 358-364. <https://doi.org/10.1177/1470320310391334> IF: 2.439
25. Soulis, J. V., Fytanidis, D. K., Papaioannou, V. C., **Styliadis, H.**, Giannoglou, G. D. (2011). Oscillating LDL accumulation in normal human aortic arch-shear dependent endothelium. *Hippokratia*, 15(1), 22. PMID: 21607031 IF: 0.525

2010

26. Vassilicos, V. P., Vogas, V., Giannakoulas, G., Mantziari, L., Lekka, I., Dimitrakopoulos, K., Paraskevaidis, S., Konias, S., Maglaveras, N., Chouvarda, I., **Styliadis, H.**, Styliadis, I. H. (2010). The use of transtelephonic loop recorders for the assessment of symptoms and arrhythmia recurrence after radiofrequency catheter ablation. *Telemedicine and e-Health*, 16(7), 792-798. <https://doi.org/10.1089/tmj.2010.0018> IF: 1.297
27. Dimitroula, H., Damvopoulos, E., Giannakoulas, G., Dalamanga, E., Dimitroulas, T., Sarafidis, P. A., **Styliadis H.**, Hatzitolios, A., Karvounis, H., Parcharidis, G. (2010). Effects of Renin-Angiotensin System Inhibition on Left Atrial Function of Hypertensive Patients: An

Echocardiographic Tissue Deformation Imaging Study. American journal of hypertension, 23(5), 556-561. <https://doi.org/10.1038/ajh.2010.4> IF: 3.129

2008

28. Bamidis, P. D., Konstantinidis, S., Papadelis, C. L., Perantoni, E., **Styliadis, C.**, Kourtidou-Papadeli, C., Kourtidou-Papadeli, C., Pappas, C. (2008). An e-learning platform for Aerospace Medicine. Hippokratia, 12(Suppl 1), 15. PMID: [19048088](#)
29. Mantziari, L., **Styliadis, C.**, Kourtidou-Papadeli, C., Styliadis, I. (2008). Arrhythmias, Sudden Cardiac Death and incapacitation of pilots. Hippokratia. Hippokratia, 12(Suppl 1), 53. PMID: [19050752](#)
30. Kourtidou-Papadeli, C., Papadelis, C., Koutsonikolas, D., Boutzioukas, S., **Styliadis, C.**, Guiba-Tziampiri, O. (2008). High altitude cognitive performance and COPD interaction. Hippokratia, 12(Suppl 1), 84. PMID: [19048098](#)

Book chapters

2020

1. Xeferis, S., Konstantinidis, E., Billis, A. S., Antoniou, P. E., **Styliadis, C.**, Paraskevopoulos, E., Kartsidis, P. E., Frantidis, C. A., Bamidis, P. D. (2017). Early Detection of Dementia: Advances, Challenges, and Future Prospects. In J. Wu (Ed.), Improving the Quality of Life for Dementia Patients through Progressive Detection, Treatment, and Care (pp. 74-106). Hershey, PA: IGI Global. doi:[10.4018/978-1-5225-0925-7.ch004](https://doi.org/10.4018/978-1-5225-0925-7.ch004), ISBN13: 9781522509257

2015

2. **Styliadis, C.**, Kartsidis, P., Paraskevopoulos, E. (2015). Neuroimaging approaches for elderly studies. In Bamidis, P. D., Tarnanas, I., Hadjileontiadis, L., Tsolaki, M. (2015). Handbook of Research on Innovations in the Diagnosis and Treatment of Dementia (pp. 1-439). Hershey, PA: IGI Global. <http://dx.doi.org/10.4018/978-1-4666-8234-4>

Conference contributions

2022

1. **Styliadis, C.** (2022) [Electroencephalography](#). Symposium: Clinical applications of brain mapping SAN Meeting 15-17 September 2022, Thessaloniki, Greece (**Invited Talk**)
2. **Styliadis, C.**, Nikolaidis, I., Zilidou, V., Billis, A., Karagianni, M., Kartsidis, P., Anagnostopoulou, A., Petridis, G., Moraitopoulos, A., Petronikolou, V., Paraskevopoulos, E., Liozidou, A., Poghosyan, V., Grigoriadis, N., Bamidis, P.D. (2022). [Cognitive decline prognosis in multiple sclerosis: effectiveness of a computerized cognitive training treatment on cortical reorganization](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
3. **Styliadis, C.**, Anagnostopoulou, A., Bamidis, P.D., Paraskevopoulos, E. (2022). [Multisensory integration and the cerebellum](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
4. **Styliadis, C.**, Anagnostopoulou, A., Pandria, N., Katsouli, K., Bakas, C., Karagianni M., Liozidou, A., Paraskevopoulos, E., Livanidou, T., Bamidis, P.D., Papazisis, G. (2022). [Cortical networks underpinning anhedonia in major depressive disorder via the Doors task](#).
5. Tsilimparis, K., **Styliadis, C.**, Anagnostopoulou, A., Kioselaki, G., Leung, R., Pang, E., Bamidis P.D., Papadelis, C. (2022). [Beta-band cerebro-cerebellar connectivity during emotional face processing in adolescents with autism spectrum disorder](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece (**Invited Talk**)
6. Kioselaki, G., **Styliadis, C.**, Anagnostopoulou, A., Tsilimparis, K., Leung, R., Pang, E., Bamidis P.D., Papadelis, C. (2022). [Effective cerebro-cerebellar connectivity subserving emotional face processing in adolescents with autism spectrum disorder](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
7. Kartsidis, P., Anagnostopoulou, A., **Styliadis, C.**, Paraskevopoulos, E., Zilidou, V., Karagianni, M., Romanopoulou, E., Bamidis, P.D. (2022). [Neuroplastic effects of physical and cognitive](#)

- training during a Mismatch Negativity paradigm in Down Syndrome adults. SAN Meeting 15-17 September 2022, Thessaloniki, Greece
8. Anagnostopoulou, A., **Styliadis, C.**, Kartsidis, P., Romanopoulou, E., Zilidou, V., Karali, C., Karagianni, M., Klados, M., Paraskevopoulos, E., Bamidis, P. D. (2022). [Neuroplastic effects of physical and cognitive training in adults with Down Syndrome](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
 9. Xeferis, V.R., **Styliadis, C.**, Anagnostopoulou, A., Kartsidis, P., Paraskevopoulos, E., Klados, M., Zilidou, V., Karagianni, M., Bamidis, P. D. (2022). [Neuroplasticity induced by physical exercise training in Parkinson's Disease patients](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
 10. Paraskevopoulos, E., Chalas, N., Karagiorgis, A., Karagianni, M., **Styliadis, C.**, Papadelis, G., & Bamidis, P. (2022). [Multisensory plasticity induced by musical reading training in young and older adults](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
 11. Pandria, N., Athanasiou, A., **Styliadis, C.**, Terzopoulos, N., Mitsopoulos, K., Paraskevopoulos, E., Nimatoudis, I., Argyropoulou-Pataka, P., Bamidis, P.D. (2022). [Investigating resting-state brain alterations in smokers after biofeedback and neurofeedback training](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
 12. Pandria, N., Athanasiou, A., Papazisis, G., **Styliadis, C.**, Zidiridis., C., P., Bamidis, P.D., Kaprinis, S. (2022). [Exploring gender-related differences in smoking cessation motivation during COVID-19 pandemic](#). SAN Meeting 15-17 September 2022, Thessaloniki, Greece
 13. Grigoriadou, E., **Styliadis, C.**, Bakirtzis, C., Nteli, E., Polyzoidou, E., Kesidou, E., Konstantinidou, N., Sintila, A.-S., Theotokis, P., Vrienniou, A., Grigoriadis, N., Papazisis, G., Bamidis, P., Boziki, M.K. (2022). [Diagnostic wandering in Multiple Sclerosis highlights the need for increased physicians' alertness](#). 38th Congress of the European Committee for Treatment and Research in Multiple Sclerosis. 26 – 28 October 2022. ECTRIMS 2022 – ePoster. Multiple Sclerosis Journal. 2022;28(3_suppl):692-945. doi:10.1177/13524585221123682

2021

14. Paraskevopoulos, E., Chalas, N., Karagiorgis, A., Karagianni, M., **Styliadis, C.**, Papadelis, G., Bamidis, P. (2021). [Young and older adults exhibit a different pattern of neuroplastic changes when exposed to multisensory training](#). Organization for Human Brain Mapping (OHB) virtual 2021 Annual Meeting. June 21 – June 25, 2021

2019

15. Xeferis, V.R., **Styliadis, C.**, Kartsidis, P., Anagnostopoulou, A., Paraskevopoulos, E., Zilidou, V., Bamidis, P.D. (2019). [Neuroplastic effects of physical training in Parkinson's Disease patients: An EEG resting state connectivity study](#). 8th Panhellenic Conference on Biomedical Technologies, 9-10 May 2019, Athens, Greece
16. Kartsidis, P., Karali, C., **Styliadis, C.**, Anagnostopoulou, A., Paraskevopoulos, E., Zilidou, V., Karagianni, M., Romanopoulou, E., Bamidis, P.D. (2019). [Brain connectivity of MMN in Down Syndrome changes due to cognitive and physical training](#). 8th Panhellenic Conference on Biomedical Technologies, 9-10 May 2019, Athens, Greece
17. Anagnostopoulou, A., Karali, C., **Styliadis, C.**, Kartsidis, P., Paraskevopoulos, E., Zilidou, V., Karagianni, M., Romanopoulou, E., Bamidis, P.D. (2019). [Cortical reorganization in Down Syndrome adults due to computerized physical and cognitive training: A functional connectivity resting state EEG study](#). 8th Panhellenic Conference on Biomedical Technologies, 9-10 May 2019, Athens, Greece

2018

18. **Styliadis C.**, Frantzidis, C. (2018). Sleep macro-architectures during pharmacological smoking cessation interventions. 3rd International Conference of the European Network for Smoking and Tobacco Prevention. 14-16 June 2018, Madrid, Spain (**Invited Talk**)

19. Frantzidis, C., Gkivoglou, P., Plomariti, C., Chriskos, P., **Styliadis, C.**, Karagianni, M., Kostakis, E., Nday, C., Paraskevopoulos, E., Pataka, A., Kourtidou-Papadeli, C., Bamidis P.D. (2018). **How varenicline affects sleep quality and functional connectivity? A polysomnographic evaluation.** Tob. Prev. Cessation 2018;4 (Supplement): A35. <https://doi.org/10.18332/tpc/91859>
20. Pandria, N., Athanasiou, A., Terzopoulos, N., Paraskevopoulos, E., Karagianni, M., **Styliadis, C.**, Kourtidou-Papadeli, C., Pataka, A., Lymeraki, E., Bamidis, P.D. (2018). Does biofeedback training promote neuroplastic changes in smokers? A preliminary study. 1st Scientific Summit "Tobacco Harm Reduction: Novel products, Research & Policy". June 8, 2018. Kalithea, Greece.
21. Chalas, N., Paraskevopoulos, E., Kartsidis, P., **Styliadis, C.**, Bamidis, P. (2018). **An M/EEG analysis pipeline for event related source connectivity estimation.** World Congress on Medical Physics & Biomedical Engineering IUPESM 2018, 3-8 June 2018, Prague, Czech Republic
22. Frantzidis, C., Gkivoglou, P., **Styliadis, C.**, Paraskevopoulos, E., Chriskos, P., Gilou, S., Plomariti, C., Pandria, N., Karagianni, M., Fotopoulos, D., Ntakakis, G., Bamidis, P.D., Kourtidou-Papadeli, C. (2018). **Recent advances in sleep neuroscience for extreme environments and its terrestrial applications.** World Congress on Medical Physics & Biomedical Engineering IUPESM 2018, 3-8 June 2018, Prague, Czech Republic
23. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2018). **Mapping the spatiotemporal evolution of emotional processing.** The International and European Societies of Magnetoencephalography: 50 Years of MEG. 20-21 April 2018, Poros, Greece

2017

24. Frantzidis, C., **Styliadis, C.**, Paraskevopoulos, E., Gkivoglou, P., Chriskos, P., Pandrias, D., Pandria, N., Spachos, D., Kartsidis, P., Karagianni, M., Athanasiou, A., Kalamaras, G., Panera, A., Sidiropoulos, S., Kovatsi, L.K., Kapoukranidou, D., Lyberaki, E., Iliadis, S., Makedou, K., Kourtidou-Papadeli, C., Siountas, A., Pataka, A., Argyropoulou-Pataka, P., Bamidis, P.D. (2017). **Contemporary methods for smoking cessation, based on neurosciences: The SmokeFreeBrain project** (Originally in Greek). 26th Panhellenic Pulmonary Congress. November 9-12, Athens, Greece.
25. Kartsidis, P., **Styliadis, C.**, Karagianni, M., Zilidou, V., Konstantinidis, E., Katsarou, Z., Bostantjopoulou, S., Hadjileontiadis, L. J., Bamidis, P.D. (2017). **Neuroprotective effects of physical activity in Parkinson's disease: a resting state EEG study on the WebFitForAll efficacy.** 7th Panhellenic Conference on Biomedical Technologies, 7 April 2017, Athens, Greece

2016

26. **Styliadis, C.**, Paraskevopoulos, E., Bamidis, P.D. (2016). **Cortical source imaging of emotional processing in physiological and pathological aging.** Front. Hum. Neurosci. Conference Abstract: SAN2016 Meeting. doi: 10.3389/conf.fnhum.2016.220.00082
27. **Styliadis, C.**, Vivas, A.B., Zacharopoulos, C., Zilidou, V.I., Paraskevopoulos, E., and Bamidis, P.D. (2016). **Valence, and arousal ratings for Hellenic words by young, middle-aged, and older adults.** Front. Hum. Neurosci. Conference Abstract: SAN2016 Meeting. doi: 10.3389/conf.fnhum.2016.220.00102
28. **Styliadis, C.**, Paraskevopoulos, E., Papageorgiou, S. G., Bamidis, P. D. (2016). **Cortical connectivity of emotional processing changes as a function of cognitive impairment in pathological aging.** 14th International Athens/Springfield Symposium on Advances in Alzheimer Therapy (AAT), 9-12th March, Athens, Greece
29. Chasiotou, V., **Styliadis, C.**, Romanopoulou, E., Bratsas, C., Bamidis, P.D. (2016). **Statistical evaluation of intentions of adults towards smoking advertisements.** Front. Hum. Neurosci. Conference Abstract: SAN2016 Meeting. doi: 10.3389/conf.fnhum.2016.220.00098
30. Xefteris, S., **Styliadis, C.**, Romanopoulou, E., Bamidis, P.D. (2016). **Behavioral effects of smoking advertisements on adults' affective response towards tobacco products.** Front. Hum. Neurosci. Conference Abstract: SAN2016 Meeting. doi: 10.3389/conf.fnhum.2016.220.00108
31. Billis, A., **Styliadis, C.**, Baka, M., Arfaras, G. Bamidis, P.D. (2016). **Affective neuroscience/computing approaches in evaluating an interactive educational tool to counteract**

[bullying](#). Front. Hum. Neurosci. Conference Abstract: SAN2016 Meeting. doi: 10.3389/conf.fnhum.2016.220.00091

2015

32. **Styliadis, C.**, Paraskevopoulos, E., Bamidis, P. D. (2015). [Cortical connectivity of emotional processing among young and older adults](#). FENS Featured Regional Meeting (FFRM), 7-10th October, Thessaloniki, Greece

2014

33. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2014). [Arousal and valence influence on spatiotemporal patterns of brain activity elicited by visual affective stimuli](#). 19th International Conference on Biomagnetism, BIOMAG, 24-28 August 2014, Halifax, Canada
34. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2014). [Distinct cerebellar lobules encode arousal and valence in specific time windows: an MEG study](#). Organization for Human Brain Mapping, OHBM, 8-12 June 2014, Hamburg, Germany (**Invited Talk**)
35. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2014). [Segregation of Emotional Function in Subcortical Structures: MEG Evidence](#). In XIII Mediterranean Conference on Medical and Biological Engineering and Computing 2013 (pp. 403-406). Springer International Publishing. doi: 10.1007/978-3-319-00846-2_100
36. 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 2013 (pp. 787-790). Springer International Publishing. doi: 10.1007/978-3-319-00846-2_195
37. **Styliadis, C.**, Konstantinidis, E., Billis, A., Bamidis, P. (2014). [Employing affection in elderly healthcare serious games interventions](#). In Proceedings of the 7th International Conference on PErvasive Technologies Related to Assistive Environments (p. 32). ACM. doi: 10.1145/2674396.2674456
38. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2014). [Sub-regional functional specificity of sub-cortical structures underlying emotional valence and arousal: MEG evidence](#). SAN Meeting 30 January-2 February 2014, Utrecht, Netherlands

2013

39. **Styliadis, C.**, Klados, M. A., Konstantinidis, E.I., Billis, A., Bamidis, P. D. (2013). [Spatiotemporal activity in affection and its disorders: The STHENOS approach](#). 5th Panhellenic Conference on Biomedical Technologies, 4-6 April 2013, Athens, Greece
40. Klados, M. A., **Styliadis, C.**, Frantzidis, C., Konstantidis, E., Mpallis A., Bamidis, P.D. (2013). [Neurofeedback and Affective Disorders](#). 5th Panhellenic Conference on Biomedical Technologies, 4-6 April 2013, Athens, Greece
41. Billis, A., Papageorgiou, E.I., Frantzidis, C., Konstantinidis, E. I., Astaras, A., Klados, M.A., **Styliadis, C.**, Bamidis, P.D. (2013). [Towards unobtrusive sensor based decision support system for independent living: The case of the USEFIL project](#). 5th Panhellenic Conference on Biomedical Technologies, 4-6 April 2013, Athens, Greece

2012

42. **Styliadis, C.**, Ioannides, A. A., Bamidis, P. D., Papadelis, C. (2012). [The role of cerebellum in the temporal regulation of emotional processing](#). 18th International Conference on Biomagnetism, BIOMAG, 26-30 August 2012, Paris, France
43. Lithari, C., Bamidis, P., Fragou, D., **Styliadis, H.**, Braun, C., Papadelis, C. (2012). [Acute alcohol intake affects the emotional responses in human brain](#). 18th International Conference on Biomagnetism, BIOMAG, 26-30 August 2012, Paris, France
44. **Styliadis, C.**, Papadelis, C., Bamidis, P. D., Ioannides, A. A. (2012). Emotion and cognitive and physical training, 1st Conference on Neuropsychology for the "THIRD AGE ", 18-21 October 2012, Thessaloniki, Greece (**Invited Talk**)

2011

45. **Styliadis, C.**, Papadelis, C., Bamidis, P. D., Ioannides, A. A. (2011). Gender differences across valence and arousal. SAN Meeting 5-8 May 2011, Thessaloniki, Greece (**Invited Talk**)

46. **Styliadis, C.**, Papadelis, C., Bamidis, P. D., Ioannides, A. A. (2011). Neuroimaging of emotion on healthy participants. 7th Panhellenic Conference on Alzheimer's Disease and Related Disorders, 16-20 February 2011, Thessaloniki, Greece (**Invited Talk**)

2010

47. **Styliadis, C.**, Papadelis, C., Bamidis, P. D. (2010, January). **Neuroimaging of emotional activation: Issues on Experimental Methodology, Analysis and Statistics**. In XII Mediterranean Conference on Medical and Biological Engineering and Computing 2010 (pp. 434-437). Springer Berlin Heidelberg. doi: 10.1007/978-3-642-13039-7_109

2008

48. Kourtidou-Papadeli, C., Papadelis, C., Bamidis, P.D., Vlachogiannis, E., **Styliadis, C.**, Perantoni E. (2007). Cognitive performance of pilots with mild obstructive pulmonary disease under mental stress and hypoxia. 5th International Meeting of Aerospace Medicine & 6th Workshop of Clinical Aviation, 29th August - 2nd September 2007, Skiathos, Greece

Distinctions/Awards

Hellenic Foundation for Research and Innovation (H.F.R.I.), 2nd Call for H.F.R.I. Research Projects to Support Post-Doctoral Researchers

3rd in ranking for Engineering Sciences & Technology scientific area ([Proposal #314](#))

Cover in a journal: a figure from the paper 'Distinct cerebellar lobules process arousal, valence and their interaction in parallel following a temporal hierarchy' was selected by the editorial board of NeuroImage as a cover of the journal issue [110](#)

Other scientific activity

Member of scientific organizations and societies

Human Affectome Project, Neuroqualia, Nova Scotia, Canada

Hellenic Society of Biomedical Technology (ELEVIT), Athens, Greece

Neuroscience of Cognition and Affection group (NCA), Thessaloniki, Greece

Group of Applied and Affective Neuroscience (GAAN), Thessaloniki, Greece

Member of the conference organizing committee

Society for Applied Neuroscience conference 222, 15-17 September 2022, Thessaloniki, Greece

30th International Symposium on Computer-Based Medical Systems - CBMS 2017, Thessaloniki, Greece

Society for Applied Neuroscience conference 2016, 6-9 October 2016, Corfu, Greece

Society for Applied Neuroscience conference 2011, 5-8 May 2011, Thessaloniki, Greece

Reviewer in scientific journals

PLOS One, Frontiers in Aging Neuroscience, Frontiers in Human Neuroscience, Frontiers in Digital Health-Connected Health, Neuroscience, International Journal of Psychophysiology, Psychiatry Research: Neuroimaging

Mentoring

Informal supervision (Supervisor: Panagiotis Bamidis)

Ph.D. students: Panagiotis Kartsidis, Niki Pandria, Alexandra Anagnostopoulou

MSc student: Chrysa Karali

Graduate students: Alexandra Anagnostopoulou, Vasileios Xefteris, Christonikos Zacharopoulos

Research interests

MEG/EEG, Affective and Cognitive Neuroscience, Cognitive Aging, Cognitive Decline, Emotional Processing, Training-Induced Plasticity

Computer skills

BESA (Research, MRI, Statistics), Brainstorm, CTF Software Suite, EEGLAB, SPM (Anatomy, SwE, SnPM), Brain Connectivity Toolbox, Network based Statistics Toolbox, Matlab, SPSS, Neurobs Presentation, Linux, Windows, Microsoft Office, Corel Draw Suite, Photoshop

Languages

Native language: **Greek**

Other languages: **English (Certificate of Lower in English)**

Self-assessment	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
English	Excellent	Excellent	Excellent	Excellent	Excellent

(*) *Common European Framework of Reference for Languages*

References

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