# Curriculum Vitae Alkinoos Athanasiou

### MD, MSc, PhD National Board-Certified Neurosurgeon

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Date of birth 12 October 1984 Nationality Greek



# **Current Professional Appointments**

7 Mar 2018 – present Neurosurgeon, First Department of Neurosurgery, AHEPA University General Hospital, Thessaloniki, Greece appointment for rural doctor service at RMC Dafnis (2617), Chalkidiki and secondment by decree 9453/07/03/2018 from 4<sup>th</sup> Regional Health Authority of Macedonia & Thrace

Jul 2013 - present Research Associate Laboratory of Medical Physics, Aristotle University of Thessaloniki, Greece

Dec 2016 - Mar 2018 Neurosurgeon in private practice / Interbalkan Medical Center, Thessaloniki, Greece

# Education

17 Dec 2013 – 21 Feb 2018	<u>PhD in Brain Networks</u> (Computational Neuroscience & Brain-Computer Interfaces / Neurosurgery) Aristotle University of Thessaloniki, School of Medicine, Thessaloniki, Greece - Grade: "Excellent with merit"
Oct 2009 – Mar 2012	<u>Master of Science in Medical Informatics (MSc)</u> Aristotle University of Thessaloniki, School of Medicine, Thessaloniki, Greece - Grade: "Excellent" (9.25/10)
Feb 2004 – Oct 2008	Doctor of Medicine (MD) Aristotle University of Thessaloniki, School of Medicine, Thessaloniki, Greece - Grade: "Very Good" (7.15/10)
Oct 2002 – Feb 2004	Democritus University of Thrace, School of Medicine, Alexandroupolis, Greece
Sep 1996 – Aug 2002	"Arsakeio" High School of Thessaloniki - Grade: "Excellent" (18.9/20)

# Theses

Athanasiou A (2018) **Study of neuronal circuits of the brain in patients with spinal cord injury** [thesis in Greek] Ph.D. in Brain Networks, Aristotle University of Thessaloniki, School of Medicine, Thessaloniki, Greece. Advisor committee: Prof. Konstantinos Polyzoidis, Assoc. Prof. Nicolas Foroglou, Assoc. Prof. Panagiotis D. Bamidis. Grade: "Excellent with merit"

Athanasiou A (2012) Functional connectivity of the sensorimotor cortex of the brain during actual and imaginary limb movement [thesis in Greek] M.Sc. in Medical Informatics, Aristotle University of Thessaloniki, School of Medicine, March 2012, Thessaloniki, Greece. *Advisor: Assoc. Prof. Panagiotis D. Bamidis. Grade: "Excellent" (10/10)* 

# Neurosurgical Training, Certification & Fellowships

1-15 October 2017 Spine Fellowship, under Prof. Richard Assaker, Clinique de Neurochirurgie, Centre Hospitalier Régional Universitaire de Lille, France
 13 December 2016 National Board Certification, Thessaloniki, Greece – General Directorate of Public Health and Social Care, Region of Central Macedonia, ruling decree on 20/01/2017
 13 May 2013 – 12 Resident First Department of Neurosurgery, AHEPA University General Hospital, Thessaloniki, Greece Chief Resident July 2015 – November 2016

Apr 2012 – May 2013 Senior Resident Department of Neurosurgery, "Papageorgiou" General Hospital, Thessaloniki, Greece Resident 2<sup>nd</sup> Surgical-Oncological Department, "Theageneio" Cancer Hospital, Thessaloniki, Greece Aug 2010 – Feb 2012 Department of Thoracic Surgery Jan 2012 - Feb 2012 *Dec 2008 – Mar 2012* Scientific Associate Department of Neurosurgery, "Papageorgiou" General Hospital, Thessaloniki, Greece Full-time clinical scientific associate Dec 2008 - Jul 2010 **Research** Experience Jul 2013 – present Research Associate Laboratory of Medical Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece Advisor: Assoc. Professor Panagiotis D. Bamidis - Research Groups: Biomedical Electronics Robotics & Devices (BERD), Neuroscience of Cognition & Affection (NCA), Medical Education Informatics (MEI), Innovation & Technology Empowered Learning Group (I-TELG) *Oct* 2008 – *Jun* 2013 Research Associate Laboratory of Medical Informatics, Aristotle University of Thessaloniki, Thessaloniki, Greece Advisor: Assoc. Professor Panagiotis D. Bamidis - COST action CA16116 Wearable Robots for Augmentation, Assistance or Substitution of Human Motor Functions – role: projects Management Committee (MC substitute for Greek participation) - Joint Action to support the e-Health Network 677102 / JAseHN EU Health Program (2014-2020), role: technical support. - AnatomyHoloLens (provisional name, under development): augmented/virtual reality for teaching neuroanatomy - CSI:Brainwave (Brainwave control of a wearable robotic arm for rehabilitation applications) AUTH 90886, ClinicalTrials.gov Identifier: NCT02443558, role: project proposal writer, co-applicant, principal researcher. - SmokeFreeBrain H2020 No 681120, - Long Lasting Memories (LLM) CIP-ICT-PSP.2008.1.4 & - mEducator ECP 2008 EDU 418006, role: consulting medical researcher. Actively involved in the writing or assuming consulting role in many project proposals submitted to national or international funding bodies. mentoring - Nikolaos Moustakas (2016) Brain-computer interface for robotic arm control. MSc thesis in Medical Informatics, AUTH, advisor: Assoc. Prof. Anestis Kalfas - George Arfaras (2017) Brain-computer/robotic arm interface: accuracy measurement of learning/training procedure. MSc thesis in Medical Informatics, AUTH advisor: Assoc. Prof. Panagiotis D. Bamidis - Ioannis Xygonakis (2017) Decoding motor imagery through signal analysis at cerebral source activation level in electroencephalographic data. BSc thesis in Electrical & Computer Engineering, AUTH, advisor: Assoc. Prof. Dimitris Kugiumtzis - Dimitris Karabekis (2018) BCIs, BSc thesis in Electrical & Computer Engineering, AUTH, advisor: Assoc. Prof. Christos Hamtzas

### **Research Grants**

- Apr 2018 Oct 2018 European Association of Neurosurgical Societies "Brihaye" 2018 EANS Research Grant (10,000euro) for "Adaptive and maladaptive plasticity of brain connectivity following spinal cord injury"
- Apr 2014 Apr 2015 Cervical Spine Research Society European Section (CSRS-ES) 2013 Mario Boni Research Grant (25,000euro) for project "CSI:Brainwave"

# **Teaching Experience**

- 2016 2018 **Registry of Associated Scientific Staff** School of Health Sciences, Frederick University, Cyprus educational objects: "Research Methodology" & "Information Technologies in Health Services"
- 2015 2017 **Teaching Assistant** Post Graduate Program on Organization & Administration of Education (MA), School of Pedagogical and Technological Education (ASPETE) lectures on "brain and cognitive functions" in Course "Management of behavioral issues in the school environment" & organization of associated hands-on laboratory
- 2014 2017 **Teaching Assistant** *Post Graduate Program on Nanosciences & Nanotechnology* (MSc), School of Physics, Aristotle University of Thessaloniki Course "Bioinformatics"
- 2013 2017 **Teaching Assistant** Post Graduate Program on Medical Research Methodology (MSc), School of Medicine, Aristotle University of Thessaloniki Course "Neuroscience & Neurophysiology"
- 2009 2012 Lab Instructor Graduate course "Medical Informatics I", School of Medicine, Aristotle University of Thessaloniki
- 2013 2016 Clinical Teaching to international (Erasmus) and domestic pre-graduate Medical School students (bedside teaching, neurological examination, neurosurgical patients, basic clinical skills, introduction to basic OR skills) Post-graduate lectures on Neurosurgery & Joint Neuroimaging Meetings, First Department of Neurosurgery, "AHEPA" University

General Hospital, Aristotle University of Thessaloniki - Presentation of several lectures

- 2008 2013 Post-graduate lectures on Neurosurgery, Department of Neurosurgery, "Papageorgiou" General Hospital, Thessaloniki Presentation of several lectures
  - 2005 Lab Instructor European Computer Driving License (ECDL), private computer learning center

### Awards & Achievements

- February 2017 EANS Funded Observership (3000euro) by European Association of Neurosurgical Societies, to attend a fellowship under Prof.
   Karl Schaller, HUG, Geneva, Switzerland
- Dec 2017 AOSpine Fellowship (CHF920) by AOSpine International, to attend a fellowship under Dr. Patrick Tropiano, Aix-Marseille Université, Marseille, France
- Oct 2017 Eurospine Short Term Fellowship Member to Member Grant (1500euro), to attend a spine fellowship under Prof. Richard Assaker, CHRU Lille, France
- June 2017 Student Best Poster Award for "Visual versus kinesthetic motor imagery for BCI control of robotic arms (Mercury 2.0)", presented during 30<sup>th</sup> IEEE International Symposium on Computer-Based Medical Systems (CBMS), Thessaloniki 22-24 June 2017
- Oct 2016 Best abstract "Vicky Zachariou" 2016 Award (1000euro), Hellenic Spine Society for "Thought controlled robotics for motor disabled patients and the case of CSI:Brainwave", presented during 10<sup>th</sup> Hellenic Spine Congress & Joint Meeting with French and Turkish Spine Societies, Thessaloniki, 26-29 October 2016
- June 2016 First place of "Christos Antoniadis" 2016 Award (500euro), Hellenic Society of Neurosurgery (ENXE) 2<sup>nd</sup> place in annual written examination of Neurosurgery during 30<sup>th</sup> Panhellenic Congress of Neurosurgery, Volos, Greece, 16-18 June 2016
- Nov 2013 Educational Grant for presenting authors (1000usd), European Association of Neurosurgical Societies (EANS) Annual Meeting 2013, Tel Aviv, Israel 11-14 November, 2013
- Mar 2012 Valedictorian in Master's Graduation (score: 9.25/10)
- Apr 2012 Finalist paper "Brain-Computer Interfaces: contemporary achievements and future goals towards patient mobility restoration", oral presentation [in Greek] in 5<sup>th</sup> Scientific Congress of Medical School of Aristotle University of Thessaloniki
- Sep 2009 First place in entrance examinations (score: 117.8) of Post Graduate Program (Master's) in Medical Informatics, School of Medicine, Aristotle University of Thessaloniki
- 1996 2002 Certificate of Excellence in High School, Hellenic Ministry of Education, six years & Certificate of Class Valedictorian in High School, Hellenic Ministry of Education, three years (1996 1999)

### Academic Activity

 

 Administrative Positions
 Treasurer and member of the Administrative Board, Hellenic Society of Biomedical Technology (ELEBIT) from 4/2017 onward Member of Audit Committee, Hellenic Society of Biomedical Technology (6/2010-4/2013)

 Students' representative in the General Assembly of School of Medicine, Aristotle University of Thessaloniki, 2004-2008

- ConferenceLocal Organizing Committee of "10th Hellenic Spine Congress", 26-29 October 2016, Thessaloniki, GreeceCommitteesLocal Technical Committee of "Society of Applied Neuroscience Conference SAN 2016", 6-9 October 2016, Corfu, GreeceLocal Technical Committee of "Society of Applied Neuroscience Conference SAN 2011", 5-8 May 2011, Thessaloniki, GreeceOrganizing Committee of "3rd PanHellenic Conference on Biomedical Technologies", 28-29 May 2010, Chalkidiki, Greece
- AcademicMember of Society of Applied Neurosciences (SAN), Federation of European Neuroscience Societies (FENS), International BrainMembershipsResearch Organization (IBRO), Hellenic Society for Neurosciences (HSFN) and Hellenic Society of Biomedical Technology<br/>(ELEBIT). Individual member of European Association of Neurosurgical Societies (EANS), of EUROSPINE, of AOSpine and of<br/>Hellenic Neurosurgical Society (ENXE). Member of Order of Doctors of Thessaloniki and PanHellenic Medical Society.
  - *Editor* Surgical Neurology International: Computational (SNI:Computational), Wolters Kluwer Medknow ---- "Neurotechnology: Methods, Advances and Applications", co-editor, book to be published by IET in 2019 --- special issue editor, "Computational Methods in Neuroscience Challenges and Future Trends" in Computers & Electrical Engineering, Elsevier,

Peerreviewer

- r- Advances in Human-Computer Interaction, Hindawi
  - Biomedical Signal Processing and Control (IF: 1.532), Elsevier
  - Clinical Neurophysiology (IF: 2.979), Elsevier
  - Computational Intelligence and Neuroscience (IF: 1.215), Hindawi

- Journal of Medical Internet Research (IF: 3.4), JMIR Publications

- Frontiers in Human Neuroscience (IF: 3.634), *Frontiers*International Journal of Psychophysiology (IF: 2.036), *Elsevier*
- *Kluwer* - Neuroscience (IF: 3.415), *Elsevier* 
  - Neuroscience and Biobehavioral Reviews (IF: 9.440), *Elsevier*

- JMIR mHealth and uHealth, JMIR Publications

- Journal of Neurosciences in Rural Practice, Wolters

- Perceptual & Motor Skills (IF: 0.658), Ammons Scientific

- JMIR Research Protocols, JMIR Publications

- Spinal Cord (IF: 1.870), Springer Nature

- COST (European Cooperation in Science and Technology) external expert & rapporteur

## Courses & Conferences

- Courses HarvardX PH125.1x: Data Science: R Basics, 01/2018
  - Diploma of the Hellenic Spine Society (EUROSPINE equivalent) Module 4: Trauma, Thessaloniki, Greece, 14/11/2017
  - Greek Diaspora Fellowship Program (GDFP) Course Fostering neuropsychological and clinical neuroscience training and research at AUTh through fMRI experiments, June 2017
  - European Resuscitation Council Basic Life Support (ERC BLS / CPR-AED), Thessaloniki, Greece, 10/6/2017
  - AOSpine Advanced Symposium Degenerative and Trauma, Thessaloniki, Greece, 25-26/11/2016
  - EUROSPINE European Spine Course Diploma Module 1: Basic Comprehensive Course, Thessaloniki, Greece, 7/12/2015
  - Post-graduate Lessons of Hellenic Neurosurgical Society: periods 2013-2014, 2014-2015, 2015-2016, 2017-2018. Attended many other stand-alone lectures & workshops.

International	• 3 <sup>rd</sup> International Congress on Brain & Behavior, Thessaloniki, Greece, 28/11-2/12/2007							
Conferences	Neuromath Workshop, Leuven, Belgium, 12-13/3/2009							
ć	4 <sup>th</sup> International Congress on Brain & Behavior, Thessaloniki, Greece, 3-6/12/2009							
Workshops	• TOBI Workshop 2010: Integrating BCIs with conventional assistive technology, Graz, Austria, 3-4-2/2/2010							
I I I I I I I I I I I I I I I I I I I	• MEDICON 2010 – XII Mediterranean Conference on Medical and Biological Engineering and Computing, Chalkidiki,							
24 in Total	Greece, 27-30/5/2010							
from 2007	<ul> <li>7<sup>th</sup> European Symposium on Biomedical Engineering, Chalkidiki, Greece, 28-29/5/2010</li> </ul>							
to 2017	<ul> <li>SAN 2011 – Society of Applied Neurosciences Meeting 2011, Thessaloniki, Greece, 5-8/5/2011</li> </ul>							
10 2017	• 8 <sup>th</sup> IBRO World Congress of Neuroscience, Florence, Italy, 14-18/7/2011							
	• 5 <sup>th</sup> International Congress on Brain & Behavior, Thessaloniki, Greece, 3-6/11/2011							
	MEI 2012 – 1 <sup>st</sup> International Conference on Medical Education Informatics, Thessaloniki, Greece, 6-7/4/2012							
	<ul> <li>International Meeting on Spastic Movement Disorders, Thessaloniki, Greece, 19-20/10/2012</li> </ul>							
	<ul> <li>Neuroscience Day by Society of Applied Neurosciences, Thessaloniki, Greece, 26/6/2013</li> </ul>							
	<ul> <li>WFNS 2013 – 15<sup>th</sup> World Congress of Neurosurgery, Seoul, Korea, 8-13/10/2013</li> </ul>							
	<ul> <li>EANS Annual Meeting 2013: Neuro-Oncology, Tel Aviv, Israel, 11-14/11/2013</li> </ul>							
	<ul> <li>SAN 2014 – Society of Applied Neuroscience Meeting 2014, Utrecht, the Netherlands, 30/1-2/2/2014</li> </ul>							
	• 6 <sup>th</sup> International Congress on Brain & Behavior, Thessaloniki, Greece, 6-8/2/2014							
	<ul> <li>ELGGN – European Low Grade Glioma Network Annual Meeting, Thessaloniki, Greece, 2-3/5/2014</li> <li>Joint International Meeting for Neurosurgeons, Kavala, Greece, 20-22/6/2014</li> <li>15<sup>th</sup> European Congress of Neurosurgery – EANS 2014, Prague, Czech Republic, 12-17/10/2014</li> <li>MEI 2015 – 2<sup>nd</sup> International Conference on Medical Education Informatics, Thessaloniki, Greece, 18-20/6/2015</li> <li>16<sup>th</sup> European Congress of Neurosurgery – EANS 2106, Athens, Greece, 4-8/10/2016</li> </ul>							
	SAN 2016 - 6 <sup>th</sup> Biennial Conference of the Society of Applied Neuroscience, Corfu, Greece, 6-9/10/2016							
	• Science and exploration and related technologies: ESA activities and opportunities for Greek scientists and researchers, Thessaloniki, Greece, 4/11/2016							
	• 2017 IEEE 30th International Symposium on Computer-Based Medical Systems, Thessaloniki, Greece, 22-24/6/2017							
National	• 5 <sup>th</sup> Scientific Congress of Medical School of Aristotle University of Thessaloniki, Thessaloniki, 2-5/4/2009							
Conferences	• Neurosurgery 4: skills in the age of informatics – neurotechnologies, Thessaloniki, 2/4/2009							
, &	• 23 <sup>rd</sup> Annual Hellenic Congress of Neurosurgery, Alexandroupoli, 10-13/6/2009							
Workshops	• 3 <sup>rd</sup> Panhellenic Spine Congress, Athens, 16-18/10/2009							
1	• Update meeting for the referees of the Hippokratia Journal, Thessaloniki, 18-19/12/2009							
24 in Total	• 3 <sup>rd</sup> Panhellenic Conference on Biomedical Technologies (ELEVIT), Chalkidiki, Greece, 28-29/5/2010							
from 2009	• 26 <sup>th</sup> Northern Greece Medical Congress, Thessaloniki, 31/3-2/4/2011							
to 2017	• 6 <sup>th</sup> Scientific Congress of Medical School of Aristotle University of Thessaloniki, Thessaloniki, 7-9/4/2011							
10 2017	<ul> <li>4<sup>th</sup> Panhellenic Congress of Hellenic Society of Large Intestinal – Anal Surgery, Thessaloniki, 19-22/5/2011</li> </ul>							
	• 25 <sup>th</sup> Annual Hellenic Congress of Neurosurgery, Athens, 23-25/6/2011							
	<ul> <li>10<sup>th</sup> Congress of Surgical Society of Northern Greece, Thessaloniki, 8-10/12/2011</li> </ul>							
	<ul> <li>26<sup>th</sup> Annual Hellenic Congress of Neurosurgery, Thessaloniki, 31/5-2/6/2012</li> </ul>							
	• 6 <sup>th</sup> Panhellenic Spine Congress, Ioannina, 25-28/10/2012							
	<ul> <li>5<sup>th</sup> Panhellenic Congress of Vascular Cerebral Diseases, Thessaloniki, 8-9/3/2013</li> </ul>							
	• 28 <sup>th</sup> Northern Greece Medical Congress. Thessaloniki. 4-6/4/2013							

- 27<sup>th</sup> Annual Hellenic Congress of Neurosurgery, Athens, 27-29/6/2013
- 28<sup>th</sup> Annual Hellenic Congress of Neurosurgery, Kavala, 19-22/6/2014
- Hellenic Neurosurgical Society Meeting on Neurosurgical Training, Athens, 18/4/2015
- 30<sup>th</sup> Annual Hellenic Congress of Neurosurgery, Volos, 16-18/6/2016
- 10<sup>th</sup> Hellenic Spine Congress & Joint Meeting French and Turkish Spine Societies, Thessaloniki, Greece, 26-29/10/2016
- Studies in AUTH and the World at the 21<sup>st</sup> Century, Thessaloniki, Greece, 11-12/11/2016
- 7<sup>th</sup> Panhellenic Congress of Biomedical Technology, Athens, Greece, 7/4/2017
- 31<sup>th</sup> Annual Hellenic Congress of Neurosurgery, Ioannina, 15-17/6/2017
- IEEE EMBS Student Chapter AUTH: Brain Connectivity Networks, Thessaloniki, 12/12/2017

CME credits Total **432** 

### Skills & Other Participations

- *Other skills* Experience in SPSS, MATLAB, EEGLAB, Brainstorm, eConnectome. Great knowledge of PC (Windows and MacOS, Office suites, Web, Photoediting). Driving Licence EU categories A & B.
- Languages Greek, native language English, Certificate of Proficiency in English, Un. of Michigan (level C2) French, DALF C1 Japanese, beginner

*Other* Candidate in municipal elections in 2006 (municipality of Thermaikos, Thessaloniki). Posted articles in regional newspapers and magazines about politics, ecology, social matters and education in Greece. Interested (among others) in literature, music (plays guitar), miniature modeling, comics, role-playing games and strategy. Athlete of kendo (3<sup>rd</sup> kyu) and wu shu kwan kung fu (green belt), also plays basketball and runs.

### References

- KonstantinosProfessor of Neurosurgery, Former Chairman, 1st Department of Neurosurgery, AHEPA University General Hospital, AristotlePolyzoidisUniversity of Thessaloniki, Greece Diplomate, American Board of Neurological Surgery polyzoik@auth.gr kostapol@otenet.gr
- Nicolas G.Associate Professor of Neurosurgery, 1st Department of Neurosurgery, AHEPA University General Hospital, Aristotle University of<br/>Thessaloniki, Greece nforoglou@auth.gr
- IoannisAssociate Professor of Neurosurgery, 1st Department of Neurosurgery, AHEPA University General Hospital, Aristotle University ofMagrasThessaloniki, Greece john.magras@gmail.com jemagras@med.auth.gr
- Panagiotis D.Associate Professor, Lab of Medical Physics, Faculty of Medicine, School of Health Sciences, Aristotle University of Thessaloniki,<br/>Greece bamidis@auth.gr pdbamidis@gmail.com

### Summary of Publications

Journal papers Short Journal papers Chapters		27	27 Abstracts in international conferences 27 Abstracts in national conferences Invited talks Publications in lay press			<ul> <li>33 (10 oral, 23 posters)</li> <li>63 (29 oral, 4 oral &amp; poster, 30 posters)</li> <li>3</li> <li>1</li> </ul>
Conference papers (peer reviewed) Conference papers (not peer reviewed) Abstracts in published proceedings (p.r.)	3	25			Theses	<b>2</b> ( <i>MSc</i> , <i>PhD</i> )
<u>Citations</u> Scopus Google Scholar ResearchGate	<b>104</b> 40 91 85		<u>H index</u> Scopus Google Scholar ResearchGate	4 6	<u>i10 index</u> Scopus Google Scholar ResearchGate	1 2

# Selected Journal Publications

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 (2012)

Athanasiou A, Lithari C, Kalogianni K, Klados MA, Bamidis PD

Advances in Human-Computer Interaction, 2012: 127627, 10 pages, https://dx.doi.org/10.1155/2012/127627

#### Towards brain computer interface control of a 6-degree of freedom robotic arm using dry EEG electrodes (2013)

Astaras A, Moustakas N, <u>Athanasiou A</u>, Gogoussis A Advances in Human-Computer Interaction, 2013: 641074, 6 pages, https://dx.doi.org/10.1155/2013/641074

Anterolateral meningioma of the foramen magnum and high cervical spine presenting intradural and extradural growth in a child: case report and literature

review (2015) Athanasiou A, Magras I, Sarlis P, Spyridopoulos E, Polyzoidis K Child's Nervous System, 31(12): 2345-2351, http://dx.doi.org/10.1007/s00381-015-2784-5

### Reappraisal of radionuclide cisternography in the diagnosis of chronic hydrocephalus - a single institution report (2015)

<u>Athanasiou A</u>, Prassas A, Alexopoulos G, Alexandris C, Tsolpidis P, Tsoleka K Interdisciplinary Neurosurgery: Advanced Techniques and Case Management, 2(3): 142-144, http://dx.doi.org/10.1016/j.inat.2015.06.001

**Investigating the role of alpha and beta rhythms in functional motor networks** (2016) Athanasiou A, Klados MA, Styliadis CH, Foroglou N, Polyzoidis K, Bamidis PD

Neuroscience (in press), http://dx.doi.org/10.1016/j.neuroscience.2016.05.044

Towards rehabilitation robotics: off-the-shelf BCI control of anthropomorphic robotic arms (2017)

Athanasiou A, Arfaras G, Pandria N, Kartsidis P, Kavazidi KR, Foroglou N, Astaras A, Bamidis PD Biomed Research International, 2017: 5708937, 17 pages, http://dx.doi.org/10.1155/2017/5708937

### Lasting bilateral mydriasis in traumatic brain injury may not always be a lost case (2017)

<u>Athanasiou A</u>, Balogiannis I, Magras I Surgical Neurology International, 8: 229, http://dx.doi.org/10.4103/sni.sni 299 17

A systematic review of investigations into functional brain connectivity following spinal cord injury (2017) <u>Athanasiou A</u>, Klados MA, Pandria N, Foroglou N, Kavazidi KR, Polyzoidis K, Bamidis PD Frontiers in Human Neuroscience, 11: 517, http://dx.doi.org/10.3389/fnhum.2017.00517

Wireless brain-robot interface: user perception and performance assessment of spinal cord injury patients (2017) <u>Athanasiou A</u>, Arfaras G, Pandria N, Xygonakis I, Foroglou N, Astaras A, Bamidis PD Wireless Communication and Mobile Computing, 2017: 2986423, 16 pages, https://doi.org/10.1155/2017/2986423

#### Functional brain connectivity during multiple motor imagery tasks in spinal cord injury (2018) Athanasiou A, Terzopoulos N, Pandria N, Xygonakis I, Foroglou N, Polyzoidis K, Bamidis PD

Neural Plasticity, 2018: 9354207 (in press)

# Selected Conference Papers

#### **Development and user assessment of a body-machine interface for a hybrid-controlled 6-degree of freedom robotic arm (MERCURY)** (2014) Moustakas N, Athanasiou A, Kartsidis P, Bamidis PD, Astaras A

In: Roa Romero LM (ed.) IFMBE Proceedings, 41: 65-68, Spinger International Publishing Switzerland, doi:10.1007/978-3-319-00846-2 16

#### Development of MERCURY version 2.0 robotic arms for rehabilitation applications (2015)

Moustakas N, Kartsidis P, <u>Athanasiou A</u>, Astaras A, Bamidis PD In: Proceedings of 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2015, Corfu, Greece, 1-3/7/2015). ACM, New York, Article 17, 4 pages. ISBN: 978-1-4503-3452-5. https://dx.doi.org/10.1145/2769493.2769558

State of the art and future prospects of nanotechnologies in the field of Brain-Computer Interfaces (2016)

Athanasiou A, Klados MA, Astaras A, Foroglou N, Magras I, Bamidis PD In: Kyriacou E, Christofides S, Pattichis CS (eds.) IFMBE Proceedings, 57: 456-460, Spinger International Publishing Switzerland, doi:10.1007/978-3-319-32703-7 90

#### **Commercial BCI control and functional brain networks in spinal cord injury: a proof-of-concept** (2017) <u>Athanasiou A</u>, Arfaras G, Xygonakis I, Kartsidis P, Pandria N, Kavazidi KR, Astaras A, Foroglou N, Polyzoidis K, Bamidis PD 30th IEEE International Symposium on Computer-Based Medical Systems: 262-267, doi: 10.1109/CBMS.2017.35

**Visual versus kinesthetic motor imagery for BCI control of robotic arms (Mercury 2.0)** (2017) Arfaras G, Athanasiou A, Pandria N, Kavazidi KR, Kartsidis P, Moustakas N, Astaras A, Bamidis PD 30th IEEE International Symposium on Computer-Based Medical Systems: 440-445, doi: 10.1109/CBMS.2017.34

**FCLAB:** An EEGLAB-plugin for performing functional connectivity analysis on single-subject EEG data (2018) Pezoulas VC, <u>Athanasiou A</u>, Nolte G, Zervakis M, Fratini A, Fotiadis DI, Klados MA IEEE International Conference on Biomedical and Health Informatics (BHI 2018): MoPO.12, doi:

# Selected Abstracts

#### Graph analysis of sensorimotor cortex functional networks – comparison of alpha vs beta rhythm in motor imagery and execution (2014) Athanasiou A, Foroglou N, Polyzoidis K, Bamidis PD

In: Gruzelier JH, Arms M, Kenemans JL, Bamidis PD (eds.) SAN/NIHC 2014 Meeting Conference Program & Abstracts, p 64-65. ISBN/EAN: 9789077875810. https://dx.doi.org/10.13140/2.1.3183.3603

Reorganization of brain networks after spinal cord injury: a qualitative synthesis of the literature (2016) Athanasiou A, Klados MA, Foroglou N, Kavazidi KR, Polyzoidis K, Bamidis PD Frontiers in Human Neuroscience Conference Abstract: SAN2016 Meeting. https://dx.doi.org/10.3389/conf.fnhum.2016.220.00036

Analysis of cortical sensorimotor networks formed during different motor task categories in spinal cord injury (2018) Terzopoulos N, Xygonakis I, Pandria N, <u>Athanasiou A</u>, Bamidis PD World Congress on Medical Physics & Biomedical Engineering – IUPESM 2018: to be presented