Curriculum Vitae

RICARDO FILIPE ALVES MARTINS

Ricardo Martins is a postdoctoral researcher at the University of Coimbra (UC). He holds a PhD in Electrical and Computer Engineering, specializing in automation and robotics, and an MSc in Biomedical Engineering.

During his PhD, his research focused on artificial perception in robotics. Currently, as a postdoctoral researcher, he works in the field of neuroimaging in cognitive neuroscience at UC, within the Coimbra Institute for Biomedical Imaging and Translational Research (CIBIT-UC) and the Institute of Nuclear Sciences Applied to Health (ICNAS-UC).

His core training and research interests include probability and statistics, multivariate signal and image processing, computational modeling, and machine intelligence, which he applies to the investigation of brain function using PET, fMRI, and MRI.

Identification

Personal identification

Full name
RICARDO FILIPE ALVES MARTINS

Citation names

Martins, Ricardo

Author identifiers

Ciência ID
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Email addresses

ricardo.martins@uc.pt (Professional)

Addresses

ICNAS - Instituto de Ciências Nucleares Aplicadas à Saúde, Azinhaga de Santa Comba, 3000-548 Coimbra, Coimbra, Portugal (Professional)

Websites

https://ricardomar.github.io/ (Professional)

Knowledge fields

Engineering and Technology - Medical Engineering - Medical Engineering
Medical and Health Sciences - Clinical Medicine - Radiology, Nuclear Medicine and Medical Imaging
Medical and Health Sciences - Basic Medicine - Neurosciences
Engineering and Technology - Electrotechnical Engineering, Electronics and Informatics - Robotics and
Automatic Control

Languages

Language	Speaking	Reading	Writing	Listening	Peer-review
English	Advanced (C1)	Advanced (C1)	Advanced (C1)	Advanced (C1)	Advanced (C1)
Portuguese (Mother tongue)					

Education

	Degree	Classification
2019/10/07 - 2019/10/09 Concluded	KCL PET Methodology Course (Outros) King's College London, United Kingdom Institute of Psychiatry Psychology and Neuroscience Department of Basic and Clinical Neuroscience, United Kingdom	advanced training
2019/07/11 - 2019/07/18 Concluded	IST Lisbon Machine Learning School (Outros) Universidade de Lisboa Instituto Superior Técnico, Portugal Instituto de Engenharia de Sistemas e Computadores Investigação e Desenvolvimento em Lisboa, Portugal	advanced training
2018/09/10 - 2018/09/14 Concluded	ETHZ/UZH Computational Psychiatry Course 2018 (Outros) Departement Informationstechnologie und Elektrotechnik, Switzerland Universität Zürich Institut für Informatik, Switzerland	advanced training
2009/10/01 - 2017/02/27 Concluded	Engenharia Eletrotécnica e de Computadores (Doutoramento) Major in Automation and Robotics Universidade de Coimbra, Portugal *"Development of techniques for haptic object exploration: a contribution forautonomous robotic hands"* (THESIS/DISSERTATION)	Approved with praise and distinction

2016/06/06 - 2016/06/08 Concluded	FieldTrip: a MATLAB toolbox for MEG - EEG analysis (Outros)	advanced training
	Radboud Universiteit Donders Institute for Brain Cognition and Behaviour, Netherlands	
2016/01/01 - 2016/03/31 Concluded	Biostatistics and design of clinical trials (Outros)	advanced training
	Universidade de Coimbra, Portugal	
2010/10/01 - 2011/07/31 Concluded	Advanced studies in Electrical and Computer Engineering (Outros)	Excellent (18 out of 20)
	Universidade de Coimbra, Portugal	
2010/09/27 - 2010/10/01 Concluded	Summer School on Robotic Grasping (Outros)	advanced training
	Universitat Jaume I Escola Superior de Tecnologia i Ciències Experimentals, Spain	
2002/10/01 - 2008/09/18 Concluded	Engenharia Biomédica (Mestrado integrado) Major in Instrumentação Biomédica	Very good with distinction (18 out of 20)
	Universidade de Coimbra, Portugal	
	"BW-Eye: Ophthalmologic decision support system based on clinical workflow and data mining techniques" *(THESIS/DISSERTATION)*	

Affiliation

Science

	Category Host institution/organization	Employer
2019/10 - Current	Contracted Researcher (Research) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2017/05 - 2019/09	Postdoc (Research)	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal

2014/01 - 2017/04	Researcher (Research)	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
2008/10 - 2017/03	Researcher (Research)	Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal

Projects

Grant

	Designation	Funders
2024/01 - 2027/12	Longitudinal study of biomarkers of visual cortex plasticity in stroke: fMRI population receptive fields mapping and [11C] UCB-J PET synaptic density assessment 2023.00376.BDANA Supervisor Universidade de Coimbra, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Ongoing
2023/09 - 2026/08	BS2C: Non-invasive Brain Stimulation for Social Cognitive impairment in Schizophrenia FLAD-Mental-Health-2023 Technical development CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Universidade de Coimbra, Portugal	Fundação Luso-Americana para o Desenvolvimento, Portugal Ongoing
2019/09 - 2025/09	CEEC-Institucional: Institutional Call to Scientific Employment Stimulus - 1st Edition CEECINST/00041/2018/CP1568/CT0005 10.54499/CEECINST/00041/2018/CP1568/CT0005 Researcher Universidade de Coimbra, Portugal CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Ongoing
2019 - 2025	AIMS-2-TRIALS: Autism Innovative Medicine Studies - 2 - Trials 777394 10.3030/777394 Researcher CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal	EU Framework Programme for Research and Innovation Societal Challenges, Belgium Ongoing

Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal

2021 - 2024	NeuroHyst: Neural mechanisms underlying positive and negative perceptual hysteresis PSI-GER/1326/2020 PTDC/PSI-GER/1326/2020 PT PTDC/PSI-GER/1326/2020 Researcher CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Concluded
2020 - 2022	NANOSTEM: Developing new NANOmaterials for neural STEM cells drug delivery - Marie Sklodowska-Curie Innovative Training Network (ITN) 10.3030/764958 H2020-MSCA-ITN-2017 764958 Technical development CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal	EU Framework Programme for Research and Innovation Excellent Science, Belgium Concluded
2018 - 2022	BioMuScle: Novel multimodal imaging biomarkers of neuronal connectivity in Multiple Sclerosis MEC-NEU/31973/2017 PTDC/MEC-NEU/31973/2017 Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Concluded
2017 - 2022	STIPED: Transcranial brain stimulation as innovative therapy for chronic pediatric neuropsychiatric disorder 10.3030/731827 731827 Technical development CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	EU Framework Programme for Research and Innovation Health Demographic Change and Wellbeing, Belgium Concluded
2018 - 2021	BrEin-MS: Brain Elasticity in Multiple Sclerosis and implications in mechanomodulation of oligodendrocytes: a cellular and clinical approach MED-NEU/29516/2017 PTDC/MED-NEU/29516/2017 Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Concluded

2018 - 2021	BAD-BiomED: Affective disorders- biomarkers and early detection	Fundação para a Ciência e a Tecnologia, Portugal
	MEC-PSQ/30943/2017	
	PTDC/MEC-PSQ/30943/2017	Concluded
	Researcher	
	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	
	Centro Hospitalar e Universitário de Coimbra EPE, Portugal	
	CNC.IBILI, Portugal	

2017 - 2020	MEDPERSYST: Synaptic networks and Personalized Medicine Approaches to Understand Neurobehavioural Diseases Across the Lifespan	Fundação para a Ciência e a Tecnologia, Portugal
	PAC/0010/2015	
	SAICTPAC/0010/2015	Concluded
	PAC/0010/2015	
	Post-doc Fellow	
	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	
	CNC.IBILI, Portugal	
	Centro Hospitalar e Universitário de Coimbra EPE, Portugal	

2017 - 2019	The role of motion adaptation in bottom-up mechanisms of perceptual decision-making	Fundação Bial, Portugal
	FB2016	
	PT/FB/BL-2016-207	
	Researcher	Concluded
	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	

2016 - 2017	Multimodal mapping of visual motion perceptual decision: Dissecting the role of different motion integration areas in visual surface reconstruction	Fundação Bial, Portugal
	FB-2014	
	PT/FB/BL-2014-373	
	Researcher	Concluded
	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	
	CNC.IBILI, Portugal	

2015 - 2017	Multidisciplinary work in the field of functional magnetic resonance imaging and positron emission tomography techniques.	Fundação para a Ciência e a Tecnologia, Portugal
	UID/NEU/04539/2013	
	NEU/04539/2013	Concluded
	Researcher	
	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	
	Centro Hospitalar e Universitário de Coimbra EPE, Portugal	

2014 - 2015	From molecules to man: novel diagnostic imaging tools in neurological and psychiatric disorders CENTRO-07-ST24-FEDER-02005 Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Concluded
2010 - 2013	Development of techniques for haptic object exploration: a contribution for autonomous robotic hands BD/65990/2009 SFRH/BD/65990/2009 PhD Student Fellow Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal CNC.IBILI, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Universidade de Coimbra, Portugal Concluded
2009 - 2013	HANDLE: Developmental pathway towards autonomy and dexterity in robot in-hand manipulation 231640 CORDIS 231640 PhD Student Fellow Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal	European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium Concluded
2008 - 2009	PROMETHEUS: Prediction and interpretation of human behaviour based on probabilistic structures and heterogeneous sensors 214901 CORDIS 214901 CORDIS-214901 Research Fellow Universidade de Coimbra, Portugal Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal	European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium Concluded
2007 - 2008	EPILEPSIAE: Evolving Platform for Improving the Living Expectations of Patients Suffering from IctAl Events 211713 CORDIS 211713 Master Student Fellow Universidade de Coimbra Centro de Informatica e Sistemas, Portugal Universidade de Coimbra, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal	European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium Concluded

Outputs

Publications

Book chapter		
	1	Pereira, H. Catarina; Sousa, Daniela; Simões, Marco; Martins, Ricardo; Amaral, Carlos; Lopes, Vânia; Crisóstomo, Joana; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Effects of anodal multichannel transcranial direct current stimulation (tDCS) on social-cognitive performance in healthy subjects: A randomized sham-controlled crossover pilot study". In *Non-invasive Brain Stimulation (NIBS) in Neurodevelopmental Disorders*, 259-286. Elsevier, 2021. Published · 10.1016/bs.pbr.2021.04.004
	2	Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "Manipulative Tasks Identification by Learning and Generalizing Hand Motions". In *IFIP Advances in Information and Communication Technology*, 173-180. Springer Berlin Heidelberg, 2011. Published · 10.1007/978-3-642-19170-1_19
	3	Faria, Diego R.; Martins, Ricardo; Dias, Jorge. "Grasp Exploration for 3D Object Shape Representation Using Probabilistic Map". In *IFIP Advances in Information and Communication Technology*, 215-222. Springer Berlin Heidelberg, 2010. Published · 10.1007/978-3-642-11628-5_23
	4	Dourado, António; Martins, Ricardo; Duarte, João; Direito, Bruno. "Towards Personalized Neural Networks for Epileptic Seizure Prediction". In *Artificial Neural Networks - ICANN 2008*, 479-487. Springer Berlin Heidelberg, 2008. Published · 10.1007/978-3-540-87559-8_50

Conference paper		
	1	Lapo Pais, Marta; Jorge, Lília; Martins, Ricardo; Canário, Nádia; Xavier, Carolina; Abrunhosa, Antero; Santana, Isabel; Bernardes, Rui; Castelo-Branco, Miguel. "Texture Quantification Parameters for Alzheimer's disease diagnosis measured by 11C- (R)- PK11195 PET images". Paper presented in *European Journal of Nuclear Medicine and Molecular Imaging - EANM2021 - Annual Congress of the European Association of Nuclear Medicine*, *Online*, 2021. Published
	2	Martins, Ricardo; Filipe Ferreira, Joao; Dias, Jorge. "Touch attention Bayesian models for robotic active haptic exploration of heterogeneous surfaces". Paper presented in *IROS 2014 - 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems*, *Taipei*, 2014. Published · 10.1109/iros.2014.6942711
	3	Martins, Ricardo; Ferreira, João Filipe; Dias, Jorge. "Touch attention Bayesian models for robotic active haptic exploration". Paper presented in *REACTS 2013 - Workshop on Recognition and Action for Scene Understanding - International Conference of Computer Analysis of Images and Patterns*, *York*, 2013. Published
	4	Martins, Ricardo; Faria, Diego R.; Dias, Jorge. "Representation framework of perceived object softness characteristics for active robotic hand exploration". Paper presented in *HRI 2012 - ACM/IEEE International Conference on Human-Robot Interaction*, *Boston*, 2012. Published · 10.5281/zenodo.4553427

5   Faria, Diego R; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "Probabilistic representation of 3D object shape by in-hand exploration". Paper presented in *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, *Taipei*, 2010.

Published · 10.1109/iros.2010.5649286

6   Martins, Ricardo; Faria, Diego R.; Dias, Jorge. "Symbolic Level Generalization of In-hand Manipulation Tasks from Human Demonstrations using Tactile Data Information". Paper presented in *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2010.

Published · 10.5281/zenodo.4553413

7   Faria, Diego R.; Martins, Ricardo; Dias, Jorge. "Learning Motion Patterns from Multiple Observations along the Actions Phases of Manipulative Tasks". Paper presented in *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, *Taipei*, 2010.

Published · 10.5281/zenodo.4553421

8   Faria, Diego R.; Martins, Ricardo; Dias, Jorge. "Human reach-to-grasp generalization strategies: a Bayesian approach". Paper presented in *RSS 2009 - Robotics: Science and Systems*, *Seattle*, 2009.

Published · 10.5281/zenodo.4553390

Conference poster

1   Mehra, Chirag; Griffioen, Gina; Onwordi, Ellis C.; Martins, Ricardo; Shatalina, Ekaterina; Kowalewska, Beata; Whitehurst, Thomas; et al. Corresponding author: Murphy, Declan. "Synaptic Density Marker, SV2A, Is Reduced in Autistic Adults and a Mouse Model of Idiopathic Autism". Paper presented in *INSAR meeting 2025 - International Society for Autism Research*, 2025.

2   Sousa, Daniela; Ferreira, Ana ; Pereira, Helena C. ; Amaral, Joana A.; Crisóstomo, Joana; Simões, Marco; Martins, Ricardo; et al. Corresponding author: Castelo-Branco, Miguel. "New Dynamic Facial Expression EEG Signatures Reveal Perceptual and Attentional Features Associated with Social Communication and GABA Phenotypes in Autism: A Link with the Third Visual Pathway". Paper presented in *INSAR meeting 2025 - International Society for Autism Research*, 2025.

3   Pereira, Andreia C. ; Mouga, Susana; Rodrigues, Ana P.; Santos, Sara; Martins, Ricardo; Dimitrov, Mihail ; Ponteduro, Francesca ; et al. Corresponding author: Castelo-Branco, Miguel. "Can targeting the serotonin (5-HT) system 'shift' the neurochemistry of Autism?". Paper presented in *AIMS-2-Trials General Assembly Meeting 2025: Autism Innovative Medicine Studies 2 Trials project*, 2025.

4   Mehra, Chirag; Onwordi, Ellis C.; Shatalina, Ekaterina; Kowalewska, Beata; Whitehurst, Thomas; Griffioen-Jarfalk, Gina; Martins, Ricardo; et al. Corresponding author: Murphy, Declan. "Synaptic density marker, SV2A, is reduced in autistic adults". Paper presented in *BPNA Annual Conference 2025 - British Paediatric Neurology Association*, 2025.

5   Duarte, Isabel C.; Martins, Ricardo; Júlio, Filipa; Almeida, Íris; Marques, Joana; Januário, Cristina; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "The impact of putamen dopamine in the prefrontal cortex connectivity during executive functioning in Parkinson's disease". Paper presented in *CIBIT meeting 2024 - Coimbra Institute for Biomedical Imaging and Translational Research*, 2024.

6   Martins, Ricardo; Madeira, Nuno; Duarte, João V.; Macedo, António; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Teoria da Mente implícita na Esquizofrenia e Doença Bipolar: padrões cerebrais distintivos de conetividade funcional". Paper presented in *XVII Portuguese National Congress of Psychiatry*, 2023.

7   Costa, Gabriel N.; Schaum, Michael; Duarte, João V.; Martins, Ricardo; Castelhano, João; Wibral, Michael; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Distinct oscillatory patterns differentiate between segregation and integration processes in perceptual grouping". Paper presented in *CRSy23 - Champalimaud Research Symposium 2023*, 2023.

8   Martins, Ricardo; Duarte, João V.; Madeira, Nuno; Macedo, António; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Distinct functional connectivity patterns in dopaminergic and limbic pathways underlying task-based implicit Theory of Mind in Schizophrenia and Bipolar Disorder". Paper presented in *CRSy23 - Champalimaud Research Symposium 2023*, 2023.

9   Mehra, Chirag; Onwordi, Ellis; Kowalewska, Beata; Whitehurst, Thomas; Shatalina, Ekaterina; Griffioen, Gina; Martins, Ricardo; et al. "Synaptic density marker, SV2A, is reduced in autistic adults". Paper presented in *INSAR meeting 2023 - International Society for Autism Research*, 2023.

10   Duarte, João; Martins, Ricardo; Madeira, Nuno; Young, Kymberly; Macedo, António; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "A structural MRI study of cortical complexity features of major depression, schizophrenia, and bipolar disorder". Paper presented in *FRM 2023 - Federation of European Neuroscience Societies, Regional Meeting*, 2023.

11   Ferreira, Mariana S.; d'Almeida, Otília C.; Quental, Hugo; Martins, Ricardo; Lemos, João; Jorge, André; Castelo-Branco, Miguel. "Nervous system plasticity in stroke: functional magnetic resonance and PET". Paper presented in *CIBIT meeting 2023 - Coimbra Institute for Biomedical Imaging and Translational Research*, 2022.

12   Castelo-Branco, Miguel; Sousa, Teresa; Duarte, João Valente; MARTINS, RICARDO; Costa, Gabriel. "The role of motion adaptation in bottom-up mechanisms of perceptual decision-making". Paper presented in *13th Symposium of the BIAL Foundation "Behind and Beyond the Brain"*, 2022.

13   Costa, Gabriel N.; Schaum, Michael; MARTINS, RICARDO; Duarte, João V.; Castelhano, João; Wibral, Michael; Castelo-Branco, Miguel. "Distinct roles of beta and gamma oscillations during integration of ambiguous motion". Paper presented in *FRM 2019 - Federation of European Neuroscience Societies Regional meeting*, 2019.

14   Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel; Sayal, Alexandre. "Unraveling the neural correlates of perceptual hysteresis: the effects of perceptual history on the visual perception of an ambiguous stimulus". Paper presented in *FENS 2018 - 11th FENS Forum of Neuroscience*, 2018.

15   Sousa, Teresa; Campos, Alexandre S.; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Evidence for asymmetric perceptual adaptation to coherent and incoherent moving plaids". Paper presented in *OHBM 2018 - 24th Annual Meeting of the Organization for Human Brain Mapping*, 2018.

16   Sousa, Teresa; Kemper, Valentin; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "The Perceptual Integration of Visual Motion Revealed by hMT+ Interhemispheric Connectivity: a 7 Tesla study". Paper presented in *13th International Conference for Cognitive Neuroscience, Amsterdam*, 2017.

17   Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Castelo-Branco, Miguel. "Beta oscillations reflect perceptual experience under ambiguous stimulation but not in the absence of conflict". Paper presented in *13th International Conference for Cognitive Neuroscience*, 2017.

18   Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Long-range interhemispheric binding of bistable surface motion reflects bottom-up processes generated within hMT+". Paper presented in *13th International Conference for Cognitive Neuroscience*, 2017.

19   Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Maintenance of perceptual stability of interhemispheric surface motion is associated with bottom-up influences generated within hMT+". Paper presented in *7th Iberian Congress on Perception*, 2017.

20   Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "High-resolution 7T fMRI data on the perceptual long-range segregation vs. integration of bistable moving stimuli". Paper presented in *7th Iberian Congress on Perception*, 2017.

21   Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Study of motion adaptation and its role in deciding between competing surface representations". Paper presented in *7th Iberian Congress on Perception*, 2017.

22   Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. "Beta oscillations during motion integration and segmentation: evidence of binding or perceptual bias?". Paper presented in *7th Iberian Congress on Perception*, 2017.

23   Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. "Binding of ambiguous visual stimuli is associated with changes in beta power but not with synchrony". Paper presented in *OHBM 2016 - 22nd Annual Meeting of the Organization for Human Brain Mapping*,

2016.

24   Sousa, Teresa; Kemper, Valentin; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "Long-range perceptual integration of visual motion revealed at high resolution 7T fMRI". Paper presented in *OHBM 2016 - 22nd Annual Meeting of the Organization for Human Brain Mapping*, 2016.

25   Sousa, Teresa; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Kemper, Valentin; Goebel, Rainer; Castelo-Branco, Miguel. "Perceptual interpretation of visual motion revealed at high resolution 7T fMRI: differential modulation of neural population activity". Paper presented in *V IBILI Meeting - Coimbra Institute for Clinical and Biomedical Research*, 2015.

26   Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Madeira, Nuno; Castelo-Branco, Miguel. "Increased synchrony correlates with visual binding: a study on visual integration on healthy subjects and schizophrenic patients". Paper presented in *Annual Conference on Clinical Neurophysiology and Neuroimaging*, 2015.

27   Costa, Gabriel N.; Duarte, João V.; Intaite, Monika; Martins, Ricardo; Castelo-Branco, Miguel. "Perceptual motion integration correlates with long range neural synchrony: a study on the temporal binding hypothesis". Paper presented in *IV IBILI meeting - Coimbra Institute for Clinical and Biomedical Research.*, 2014.

28   Martins, Ricardo; Ferreira, João Filipe; Dias, Jorge. "Touch attention Bayesian models for object feature extraction in robotic blind manipulation". Paper presented in *MaxEnt2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering*, 2012.

Journal article   1   Sousa, Daniela; Ferreira, Ana; Pereira, Helena Catarina; Amaral, Joana; Crisóstomo, Joana; Simões, Marco; Martins, Ricardo; et al. Corresponding author: Castelo-Branco, Miguel. "Specific dynamic facial expression evoked responses show distinct perceptual and attentional features in autism connected to social communication and GABA phenotypes". *Scientific Reports* 15 1 (2025): https://doi.org/10.1038/s41598-025-12376-x.

Published · Open access · 10.1038/s41598-025-12376-x

2   Ferreira, Mariana; Matias, Francisca C.; Abrunhosa, Antero J.; Martins, Ricardo; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Evidence for Neuroplasticity in the Human Brain in Health and Disease: A Systematic Review Focusing on Molecular Imaging Using PET". *Neural Plasticity* 2025 1 (2025): https://doi.org/10.1155/np/9423232.

Published · Open access · 10.1155/np/9423232

3   Griffioen-Järfalk, *Gina; Bolin, Martin; Stephanov, Vladimir; Cervenka, Simon; Castelo-Branco, Miguel; Martins, Ricardo; Lundberg, Johan; et al. "No differences in synaptic density in twins with autism and their non-autistic co-twins. However, are differences in SV2A binding potential in autistic brains a matter of white matter?". *International Journal of Neuropsychopharmacology* 28 Supplement (2025): i35-i36. https://doi.org/10.1093/ijnp/pyae059.062.

Published · Open access · 10.1093/ijnp/pyae059.062

4   Costa, Gabriel N.; Schaum, Michael; Duarte, João V.; Martins, Ricardo; Duarte, Isabel Catarina; Castelhano, João; Wibral, Michael; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Distinct oscillatory patterns differentiate between segregation and integration processes in perceptual grouping". *Human Brain Mapping* 45 12 (2024): https://doi.org/10.1002/hbm.26779.

Published • Open access • 10.1002/hbm.26779

5   Pinto, Diogo; Martins, Ricardo; Macedo, António; Castelo-Branco, Miguel; Duarte, João Valente; Madeira, Nuno. Corresponding author: Madeira, Nuno. "Brain Hemispheric Asymmetry in Schizophrenia and Bipolar Disorder". *Journal of Clinical Medicine* 12 10 (2023): https://doi.org/10.3390/jcm12103421.

Published • Open access • 10.3390/jcm12103421

6   Lapo Pais, Marta; Jorge, Lília; Martins, Ricardo; Canário, Nádia; Xavier, Ana Carolina; Bernardes, Rui; Abrunhosa, Antero; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Textural properties of microglial activation in Alzheimer's disease as measured by (R)-[11C]PK11195 PET". *Brain Communications* (2023): http://dx.doi.org/10.1093/braincomms/fcad148.

Published • Open access • 10.1093/braincomms/fcad148

7   Bourbon-Teles, José; Jorge, Lília; Canário, Nádia; Martins, Ricardo; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Associations between cortical ß-amyloid burden, fornix microstructure and cognitive processing of faces, places, bodies and other visual objects in early Alzheimer's disease". *Hippocampus* (2022): http://dx.doi.org/10.1002/hipo.23493.

Published • Open access • 10.1002/hipo.23493

8   Canário, Nádia; Jorge, Lília; Martins, Ricardo; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Dual PET-fMRI reveals a link between neuroinflammation, amyloid binding and compensatory task-related brain activity in Alzheimer's disease". *Communications Biology* 5 1 (2022): http://dx.doi.org/10.1038/s42003-022-03761-7.

Published • Open access • 10.1038/s42003-022-03761-7

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10   Martins, Ricardo; Oliveira, Francisco; Moreira, Fradique; Moreira, Ana Paula; Abrunhosa, Antero; Januario, Cristina; Castelo-Branco, Miguel. "Automatic classification of idiopathic Parkinson's disease and atypical parkinsonian syndromes combining [11C]raclopride PET uptake and MRI grey matter morphometry". *Journal of Neural Engineering* 18 4 (2021): http://dx.doi.org/10.1088/1741-2552/abf772.

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11   Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin G.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "The dual nature of the BOLD signal: Responses in visual area hMT + reflect both input properties and perceptual decision". *Human Brain Mapping* (2021): http://dx.doi.org/10.1002/hbm.25339.

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12   Jorge, Lília; Martins, Ricardo; Canário, Nádia; Xavier, Carolina; Abrunhosa, Antero; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Investigating the Spatial Associations Between Amyloid-ß Deposition, Grey Matter Volume, and Neuroinflammation in

Alzheimer's Disease". *Journal of Alzheimer's Disease* (2021): 1-20. http://dx.doi.org/10.3233/jad-200840.

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13   Jorge, Lília; Canário, Nádia; Martins, Ricardo; Santiago, Beatriz; Santana, Isabel; Quental, Hugo; Ambrósio, Francisco; Bernardes, Rui; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "The Retinal Inner Plexiform Synaptic Layer Mirrors Grey Matter Thickness of Primary Visual Cortex with Increased Amyloid ß Load in Early Alzheimer's Disease". *Neural Plasticity* 2020 (2020): https://doi.org/10.1155/2020/8826087.

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14   Sayal, Alexandre; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Identification of competing neural mechanisms underlying positive and negative perceptual hysteresis in the human visual system". *NeuroImage* (2020): 117153. http://dx.doi.org/10.1016/j.neuroimage.2020.117153.

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23   Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "Extracting data from human manipulation of objects towards improving autonomous robotic grasping". *Robotics and Autonomous Systems* 60 3 (2012): 396-410. http://hdl.handle.net/10316/92463.

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24   Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "A Probabilistic Framework to Detect Suitable Grasping Regions on Objects". *IFAC Proceedings Volumes* 45 22 (2012): 247-252. http://dx.doi.org/10.3182/20120905-3-hr-2030.00090.

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25   Direito, Bruno; Martins, Ricardo; Costa, Rui P.; Dourado, António; Sales, Francisco; Vieira, Marco. "Computational Intelligence Algorithms for Seizure Prediction - 8th European Congress on Epileptology". *Epilepsia* 50 (2009): 211-211. http://dx.doi.org/10.1111/j.1528-1167.2009.02063.x.

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Thesis / Dissertation	1	MARTINS, RICARDO. "Development of techniques for haptic exploration and recognition of objects - a contribution to autonomous robotic hands". PhD, Universidade de Coimbra, 2017. http://hdl.handle.net/10316/31939.
	2	MARTINS, RICARDO. "BW-Eye: Ophthalmologic decision support system based on clinical workflow and data mining techniques-image registration algorithm". Master, Universidade de Coimbra, 2008. https://estudogeral.uc.pt/handle/10316/9935. 10.5281/zenodo.4553367

Other

Dataset	1	Martins, Ricardo. Open-code, journal paper: personalized neural networks for epileptic seizure prediction. http://github.com/rmartins-net/Towards-Personalized-Neural-Networks-for-Epileptic-Seizure-Prediction. 2018. 10.5281/zenodo.4570620
	2	Sousa, Teresa; Sayal, Alexandre; Martins, Ricardo; Duarte, João V.; Costa, Gabriel N.. Open Code, journal paper: Identification of competing neural mechanisms underlying positive and negative perceptual hysteresis in the human visual system. https://github.com/CIBIT-UC/public_vphysteresis.
	3	Martins, Ricardo. Open-data, citizen science: iNaturalist research-grade observations recorded by Ricardo Martins. https://www.gbif.org/. 2024. 10.15468/dl.dydmxx

| Other output | 1 | Synaptic density in autism in a multi-center cohort. OSF Pre-registration. 2024. Griffioen, Gina; Borg, Jacqueline; Mehra, Chirag; Murphy, Declan; Matheson, Granville; Martins, Ricardo; Castelo-Branco, Miguel; et al. https://doi.org/10.17605/OSF.IO/MGST3. |
| | | 10.17605/OSF.IO/MGST3 |

Activities

Oral presentation

	Presentation title	Event name / Host (Event location)
2024/07/17	CIBIT Summer School 2024: ICNAS-UC MRI unit - visit and demonstration (instrumentation, study design, structural and functional imaging data)	CIBIT Summer School 2024 — CIBIT - Coimbra Institute for Biomedical Imaging and Translational Research (Portugal)
2023/07	CIBIT Summer School 2023: ICNAS-UC MRI unit - visit and demonstration (instrumentation, study design, structural and functional imaging data)	CIBIT Summer School 2023 — CIBIT - Coimbra Institute for Biomedical Imaging and Translational Research (Coimbra, Portugal)
2022/10	IAEA's technical cooperation project: Data analysis pipelines in brain PET-MRI studies - ICNAS research activities	IAEA's technical cooperation project ARG6021 - Advancing Nuclear Medicine and Radiology Through Innovative Data Driven Methodologies — ICNAS-UC (Coimbra, Portugal)
2022/07	CIBIT Summer School 2022: ICNAS-UC MRI unit - visit and demonstration (instrumentation, study design, structural and functional imaging data)	CIBIT Summer School 2022 — CIBIT - Coimbra Institute for Biomedical Imaging and Translational Research (Coimbra, Portugal)
2021/11/30	"How do Scientists Study the Brain? Introduction to Magnetic Resonance Brain Imaging" - Martim de Freitas' High-school Weekly Science Club 2021/2022	Martim de Freitas' High-school Weekly Science Club 2021/2022 — Martim de Freitas' High-school (Coimbra, Portugal)
2020/01/23	"How do Scientists Study the Brain? Introduction to Magnetic Resonance Brain Imaging" - Martim de Freitas' High-school Weekly Science Club 2019/2020	Martim de Freitas' High-school Weekly Science Club 2019/2020 — Martim de Freitas' High-school (Coimbra, Portugal)
2019/10/21	Neuroimaging studies in psychiatric disorders: an overview of CIBIT's projects	Psychiatry course — Integrated Master's degree in Medicine - University of Coimbra (Coimbra, Portugal)

2014/09/05	Touch attention Bayesian models for robotic active haptic exploration of heterogeneous surfaces	IROS 2014 - IEEE/RSJ International Conference on Intelligent Robots and Systems
		IEEE Robotics and Automation Society (Chicago, United States)
2013/08/30	Touch attention Bayesian models for robotic active haptic exploration	REACTS 2013 - Workshop on Recognition and Action for Scene Understanding - International Conference of Computer Analysis of Images and Patterns
		CAIP 2013 - International Conference of Computer Analysis of Images and Patterns (York, United Kingdom)
2012/09/06	A Probabilistic Framework to Detect Suitable Grasping Regions on Objects	SYROCO 2012 - IFAC Symposium on Robot Contro
		International Federation of Automatic Control (Dubrovnik, Croatia)
2012/07/18	Touch attention Bayesian models for object feature extraction in robotic blind manipulation	MaxEnt2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering
		Max Planck Institute for Plasma Physics (Munich, Germany)
2012/03/05	Representation framework of perceived object softness characteristics for active robotic hand exploration	HRI 2012 - ACM/IEEE International Conference on Human-Robot Interaction
		IEEE Robotics and Automation Society (Boston, United States)
2012/02/03	Representation framework of perceived object softness characteristics for active robotic hand exploration	HANDLE 2012 - workshop on Developmental pathway towards autonomy and dexterity in robot in-hand manipulation
		Universitat Jaume I (Benicasim, Spain)
2010/10/18	Symbolic Level Generalization of In-hand Manipulation Tasks from Human Demonstrations using Tactile Data Information	IROS 2010 - IEEE/RSJ International Conference on Intelligent Robots and Systems - Workshop on Grasping Planning and Task Learning by Imitation
		IEEE Robotics and Automotation Society (Taipei, Taiwan)
2009/07/28	Human reach-to-grasp generalization strategies: a Bayesian approach	RSS 2009 - Robotics: Science and Systems - Workshop: Understanding the Human Hand for Advancing Robotic Manipulation
		Robotics: Science and Systems (Seattle, United States)

Supervision

	Thesis Title Role	Degree Subject (Type) Institution / Organization
2023/09 - Current	Longitudinal study of biomarkers of visual cortex plasticity in stroke: fMRI population receptive fields mapping and [11C]-UCB-J PET synaptic density assessment Co-supervisor of Mariana Ferreira	Doctoral Program in Biomedical Engineering (PhD) Universidade de Coimbra, Portugal
2023/09 - 2024/09/25	Molecular imaging and cognitive functions in Parkinson's disease: image processing integrating [18F]FDOPA PET Co-supervisor of Íris Almeida	Master in Medical Physics (Master) Universidade de Coimbra, Portugal

Event organisation

	Event name Type of event (Role)	Institution / Organization
2024/07/15 - 2024/07/19	CIBIT Summer School 2024 (2024/07/15 - 2024/07/19) Symposium	CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2019/10 - 2021/01	Martim de Freitas' school Weekly Science Club: "Scientific Method: How do Scientists Study the Brain?" (2019/10 - 2021/01) Exhibition (Co-organisor)	CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
2017/09/01 - 2017/09/01	RO-MAN2017 - IEEE International Symposium on Robot and Human Interactive Communication: Workshop on ARtificial Perception, MAchine Learning and DAtasets for Human-Robot Interaction (ARMADA'17). (2017/09/01 - 2017/09/01) Workshop (Member of the Scientific Committee)	Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal CNC.IBILI, Portugal
2017/07/06 - 2017/07/07	7th Iberian Congress on Perception (2017/07/06 - 2017/07/07) Congress (Member of the Organising Committee)	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal CNC.IBILI, Portugal
2012/09/05 - 2012/09/05	SYROCO 2012 - 10th IFAC Symposium on Robot Control - Co-chairing of session "Grasping" (2012/09/05 - 2012/09/05) Conference (Co-organisor)	Universidade de Coimbra, Portugal

Event participation

	Activity description Type of event	Event name Institution / Organization
2025/07/01 - 2025/07/01	Precision neurocognition: An emerging diagnostic paradigm leveraging digital cognitive assessment technology - David J. Libon (online) Seminar	Precision neurocognition: An emerging diagnostic paradigm leveraging digital cognitive assessment technology - David J. Libon (online) Rowan University, United States
2025/06/26 - 2025/06/26	Amyloid and Tau in Alzheimer's Disease: Insights into Disease Progression - Niklas Mattsson-Carlgren (online) Seminar	Amyloid and Tau in Alzheimer's Disease: Insights into Disease Progression - Niklas Mattsson-Carlgren (online) Biogen Idec Inc, United States
2025/05/14 - 2025/05/14	Medical Data Annotation Practices Workshop (online) Workshop	Medical Data Annotation Practices Workshop Medical Imaging with Deep Learning Foundation, Netherlands
2024/12/16 - 2024/12/16	3rd Annual Meeting of CIBIT - 2024 Meeting	3rd Annual Meeting of CIBIT - 2024 Universidade de Coimbra, Portugal
2024/02/23 - 2024/02/23	Basic introduction to multivariate neuroimaging analysis - for nerds and novices (online) Seminar	Molecular Connectivity Working Group Columbia University Irving Medical Center, United States
2024/01/19 - 2024/01/19	Brain connectomics: time for a molecular imaging perspective? (online) Seminar	Molecular Connectivity Working Group Université de Liège, Belgium
2023/12/18 - 2023/12/18	2nd Annual Meeting of CIBIT - 2023 Symposium	2nd Annual Meeting of CIBIT CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2023/09/20 - 2023/09/21	Brain Connectivity Workshop 2023: connectomics and mental health (online) Workshop	Brain Connectivity Workshop 2023: connectomics and mental health (online) Wellcome Foundation Ltd, United Kingdom
2023/04 - 2023/06	UT Austin Portugal - Online Advanced Course on Biomedical Imaging 2023 (online) Workshop	UT Austin Portugal - Online Advanced Course on Biomedical Imaging 2023 Universidade de Coimbra, Portugal The University of Texas at Austin Department of Biomedical

Engineering, United States

2023/04/03 - 2023/04/05	Turku PET Centre - PET basics course 2023 (online)	Turku PET Centre - PET basics course 2023
	Workshop	Turun PET keskus, Finland
2023/01/19 - 2023/01/20	Kraepelin Symposium 2023: "Precision Psychiatry - Transforming the Landscape of Mental Health Care" (online)	Kraepelin Symposium 2023
		Ludwig-Maximilians-Universität München, Germany
	Symposium	
2022/12/16 - 2022/12/16	1st Annual Meeting of CIBIT - 2022	1st Annual Meeting of CIBIT - 2022
	Symposium	CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2022/07/26 - 2022/07/26	Introdution to Siemens syngo.share universal Vendor Neutral Archive (VNA). Management and sharing of clinical image data, multimedia data, radiological studies and clinical documents.	Introdution to Siemens syngo.share
		Universidade de Coimbra, Portugal Siemens Healthcare GmbH, Germany
	Workshop	
2022/05/28 - 2022/05/28	PET for brain connectivity: back to the future? (online)	Brain and Brain PET 2022 - Satellite Symposium
	Workshop	University of Glasgow, United Kingdom
2022/04/04 - 2022/04/06	Turku PET Centre - PET basics course 2022 (online)	Turku PET Centre - PET basics course 2022
	Workshop	Turun PET keskus, Finland
2021/12/15 - 2021/12/15	Proton Therapy: the Challenges and the Opportunities (online)	
		The University of Texas at Austin, United States Universidade de Coimbra, Portugal
	Symposium	
2021/11/18 - 2021/11/18	Introduction to Siemens syngo.via imaging software. Advanced visualization and quantification of PET and MRI data.	Introduction to Siemens syngo.via imaging software.
		Siemens Healthcare GmbH, Germany Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
	Workshop	
2021/11/11 - 2021/11/12	Introduction to Data Management Plans. From introduction and basic concepts to hands-on exercises.	Introduction to Data Management Plans
		CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
	Workshop	

2021/08/18 - 2021/08/20	Turku PET Centre - brain imaging course 2021 (online)	Turku PET Centre Brain Imaging Course 2021 (online)
	Workshop	Turun PET keskus, Finland
2021/05/25 - 2021/05/28	Brain Connectivity Workshop 2021: consciousness and cognition (online)	Brain Connectivity Workshop 2021: consciousness and cognition (online)
	Workshop	Rotman Research Institute, Canada
2021/04/06 - 2021/04/08	Turku PET Centre - PET basics course 2021 (online)	Turku PET Centre - PET basics course 2021
	Workshop	Turun PET keskus, Finland
2021/03/01 - 2021/03/03	Terra Incognita: diving into the subcortex 2021 (online)	Terra Incognita: diving into the subcortex 2021 (online)
	Workshop	Universiteit van Amsterdam, Netherlands
2020/04/19 - 2020/04/19	Computational Psychiatry Satellite Event - Society of Biological Psychiatry Annual Meeting 2020 (online)	Computational Psychiatry Satellite Event - Society of Biological Psychiatry Annual Meeting 2020 (online)
	Workshop	Society of Biological Psychiatry, United States
2019/10/07 - 2019/10/09	KCL PET Methodology Course 2019	2019 KCL PET Methodology Course
	Workshop	King's College London, United Kingdom
2019/07/11 - 2019/07/18	IST Lisbon Machine Learning School 2019	2019 IST Lisbon Machine Learning School
	Workshop	Universidade de Lisboa, Portugal
2018/09/10 - 2018/09/14	ETHZ/UZH Computational Psychiatry Course 2018	ETHZ/UZH Computational Psychiatry Course 2018
	Workshop	Eidgenössische Technische Hochschule Zürich, Switzerland
2014/09/14 - 2014/09/18	IROS 2014 - IEEE/RSJ International Conference on Intelligent Robots and Systems	IROS 2014 - IEEE/RSJ International Conference on Intelligent Robots and Systems
	Conference	IEEE Robotics and Automation Society, United States
2012/09/05 - 2012/09/07	SYROCO 2012 - IFAC Symposium on Robot Control	SYROCO 2012 - IFAC Symposium on Robot Control
	Conference	International Federation of Automatic Control, Austria
2012/07/15 - 2012/07/20	MaxEnt 2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering	MaxEnt 2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering
	Workshop	Max-Planck-Institut für Plasmaphysik, Germany

2012/03/05 - 2012/03/08	HRI2012 - ACM/IEEE international conference on Human-Robot Interaction	HRI2012 - ACM/IEEE international conference on Human-Robot Interaction
	Conference	IEEE Robotics and Automation Society, United States
2010/10/18 - 2010/10/22	IROS 2010 - IEEE/RSJ International Conference on Intelligent Robots and Systems	IROS 2010 - IEEE/RSJ International Conference on Intelligent Robots and Systems
	Conference	IEEE Robotics and Automation Society, United States
2010/09/27 - 2010/10/01	Summer School on Robotic Grasping 2010	Summer School on Robotic Grasping 2010
	Workshop	Universitat Jaume I, Spain
2009/06/28 - 2009/07/01	RSS 2009 - Robotics: Science and Systems	RSS 2009 - Robotics: Science and Systems
	Conference	University of Washington College of Engineering, United States

Jury of academic degree

	Theme Role	Candidate name (Type of degree) Institution / Organization
2024/09/27	Neuronal function of the lumbar spine: an fMRI study in chronic low back pain and high-performance athletes	Margarida Oliveira Sebastião (Master)
	(Thesis) Main arguer	Universidade de Coimbra, Portugal
2024/07/26	Functional imaging and cognitive functions in Parkinson's disease: image processing integrating MRI data	Joana Gomes Marques (Master)
	(Thesis) Main arguer	Universidade de Coimbra, Portugal
2023/09/25	Functional brain connectivity underlying decision making in social cognition: an fMRI study in Autism Spectrum Disorder	Mariana Simões Marques (Master)
	(Thesis) Main arguer	Universidade de Coimbra, Portugal
2022/09/29	Functional connectivity as potential biomarker in Multiple Sclerosis using fMRI	Jacinta Maria Henriques Silva (Master)
	(Thesis) Main arguer	Universidade de Coimbra, Portugal
2021/09/27	Multivariate analysis of brain fMRI activity patterns - Análise multivariada de padrões cerebrais no estudo do discurso e representação semântica de conceitos	Ana Catarina Pires Nogueira (Other)
	(Thesis) Main arguer	Instituto Politécnico de Coimbra Instituto Superior de Engenharia de Coimbra, Portugal

Ad Hoc journal article review

	Journal title (ISSN)	Publisher
2025/02 - Current	IEEE Robotics and Automation Letters (2377-3766)	IEEE
2024/09 - Current	Engineering Research Express (2631-8695)	IOP
2024 - Current	NeuroImage: Clinical (2213-1582)	Elsevier
2024 - Current	Machine Learning Science and Technology (2632-2153)	IOP
2023/10 - Current	Psychological Medicine (1469-8978)	Cambridge University Press
2023/08 - Current	Journal of Neural Engineering (1741-2552)	IOP
2023/07 - Current	Journal of Ambient Intelligence and Humanized Computing (1868-5145)	Springer
2021/02 - Current	Physics in Medicine and Biology (0031-9155)	IOP
2020/10 - Current	IEEE Transactions on Robotics (1552-3098)	IEEE
2020/07 - Current	IEEE Transactions on Cybernetics (2168-2267)	IEEE
2020/01 - Current	Scientific Reports (2045-2322)	Springer Science and Business Media LLC
2018/09 - Current	IEEE Intelligent Systems (1541-1672)	IEEE
2018/03/01 - Current	Neurocomputing (0925-2312)	Elsevier
2017/11/01 - Current	Journal of Field Robotics (1556-4967)	Wiley (John Wiley & Sons)
2017/10/01 - Current	Paladyn Journal of Behavioral Robotics (2081-4836)	De Gruyter Open Sp. z o.o.
2013/04/01 - Current	International Journal of Robotics and Automation (0826-8185)	ACTA Press
2012/03/01 - Current	Pattern Recognition Letters (0167-8655)	Elsevier

Committee member

	Activity description Role	Institution / Organization
2006 - 2007	Students' representative in the University of Coimbra Physics Department council. Member	Universidade de Coimbra, Portugal

Conference scientific committee

	Conference title	Conference host
2025 - 2025	ICORR 2025 - IEEE/RAS-EMBS International Conference on Rehabilitation Robotics (conference paper reviewer)	IEEE-RAS, IEEE-EMBS
2025 - 2025	SMC 2025 - IEEE International Conference on Systems, Man, and Cybernetics (conference paper reviewer)	IEEE SMC Society
2024 - 2024	SMC 2024 - IEEE International Conference on Systems, Man, and Cybernetics (conference paper reviewer)	IEEE SMC Society
2023 - 2023	ICRA 2023 - IEEE International Conference on Robotics and Automation (conference paper reviewer)	IEEE Robotics and Automotation Society
2023 - 2023	SMC 2023 - IEEE International Conference on Systems, Man, and Cybernetics (conference paper reviewer)	IEEE SMC Society
2021 - 2021	WHC 2021 - IEEE World Haptics Conference (conference paper reviewer)	IEEE Robotics and Automotation Society
2021 - 2021	CASE 2021 - IEEE International Conference on Automation Science and Engineering (conference paper reviewer)	IEEE Robotics and Automotation Society
2020 - 2020	UR 2020 - IEEE International Conference on Ubiquitous Robots (conference paper reviewer)	IEEE Robotics and Automotation Society
2020 - 2020	CASE 2020 - IEEE International Conference on Automation Science and Engineering (conference paper reviewer)	IEEE Robotics and Automotation Society
2020 - 2020	ROMAN 2020 - IEEE International Conference on Robot & Human Interactive Communication (conference paper reviewer)	IEEE Robotics and Automotation Society
2020 - 2020	SSRR 2020 - IEEE International Symposium on Safety, Security and Rescue Robotics (conference paper reviewer)	IEEE Robotics and Automotation Society
2019 - 2019	ICAETT 2019 - International Conference on Advances in Emerging Trends and Technologies (conference paper reviewer)	Universidad Tecnológica Israel
2018 - 2018	ICRA 2018 - IEEE International Conference on Robotics and Automation (conference paper reviewer)	IEEE Robotics and Automation Society
2018 - 2018	IROS 2018 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2018 - 2018	IS 2018 - IEEE International Conference on	IEEE Technology and

	Intelligent Systems (conference paper reviewer)	Engineering Management Society
2017 - 2017	IROS 2017 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2016 - 2016	RO-MAN 2016 - IEEE International Symposium on Human and Robot Interactive Communication (conference paper reviewer)	IEEE Robotics and Automation Society
2014 - 2014	AIM 2014 - IEEE/ASME International Conference on Advanced Intelligent Mechatronics (conference paper reviewer)	IEEE Robotics and Automation Society
2013 - 2013	IROS 2013 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2013 - 2013	SAC 2013 - 28th Symposium On Applied Computing (conference paper reviewer)	ACM-SIGAPP (Association for Computing Machinery - Special Interest Group on Applied Computing)
2012 - 2012	ICRA 2012 - IEEE International Conference on Robotics and Automation (conference paper reviewer)	IEEE Robotics and Automation Society
2012 - 2012	IROS 2012 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2012 - 2012	SYROCO 2012 - 10th IFAC Symposium on Robot Control (conference paper reviewer)	IFAC - International Federation of Automatic Control

Course / Discipline taught

	Academic session	Degree Subject (Type)	Institution / Organization
2008 - 2009	Biosignals Processing and Analysis / Signals and Systems	Biomedical Engineering / Physics Engineering (Mestrado integrado)	Universidade de Coimbra, Portugal

Interview (newspaper / magazine)

	Activity description	Newspaper / Forum
2014/04	Interview with Ricardo Martins (alumnus). Science dissemination activity. Public engagement and outreach.	School Newspaper "Nova Geração" - Agrupamento de Escolas de Proença-a-Nova.

Interview (tv / radio show)

	Program	Theme
2014/02/25 -	HANDLE project - public final	Autonomous robotic systems with

2014/02/25	demonstration. Contributions: Data and code/algorithms to learn and transfer manipulation skills from human to robot. Data visualization tools. https://youtu.be/XSw5QVdzGW4	perception and dexterous manipulation capabilities.
2014/02/07 - 2014/02/07	HANDLE project - dissemination video. Presentation and demonstration of project outcomes. https://youtu.be/KJybBorZjH0	Autonomous robotic systems with perception and dexterous manipulation capabilities.

Mentoring / Tutoring

	Topic	Student name
2019/08/01 - 2024/08	Stratifying response to treatment in first-episode psychosis - Scientific and technical introduction to functional magnetic resonance imaging and positron emission tomography study design, kinetic modelling and quantification of dynamic PET data, statisti	Miguel Bajouco (PhD Student, Health Sciences, University of Coimbra)
2019/03 - 2024/08	Neuroinflamation and amyloid-ß deposits in Down syndrome - [11C]PK11195, [11C]PiB dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Lília Jorge (PhD student, Biomedical Engineering, University of Coimbra)
2023/01 - 2023/09	Neuroplasticity in stroke recovery - [11C]UCB-J dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Mariana Ferreira (Master student, Biomedical Engineering, University of Coimbra)
2020/07 - 2023/01	Stratifying response to treatment in stroke recovery - [68Ga]Ga-citrate dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Sara Bernardo (PhD student, Univ. Coimbra, Marie Sklodowska-Curie Innovative Training Network ITN)
2021/07 - 2022/07	Neuroinflamation and amyloid-ß deposits in Alzheimer's Disease - [11C]PK11195, [11C]PiB dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Nádia Canário (PhD student, HealthSciences, University of Coimbra)
2017/03/01 - 2021/04/01	Scientific and technical introduction to functional magnetic resonance imaging study design and statistical data analysis.	Nuno Madeira (PhD Student, Health Sciences, University of Coimbra)
2019/07/01 - 2019/08/31	Introduction to neuroimaging (EEG, fMRI, fNIRS) data acquisition methods. Introduction to machine learning	Bruno Santos (Master Student, Biomedical Engineering, University of Coimbra)

	techniques. Implementation of a machine learning approach using EEG data.	
2019/07/01 - 2019/08/31	Introduction to neuroimaging (EEG, fMRI, fNIRS) data acquisition methods. Introduction to machine learning techniques. Implementation of a machine learning approach using EEG data.	Sofia Silva (Master Student, Biomedical Engineering, University of Coimbra)
2012/09/01 - 2012/11/30	Multivariate statistical data analysis for robotic grasping and dexterous manipulation based on human demonstrations.	Maria de Fátima Machado (Master Student, Biomedical Engineering, University of Coimbra)
2012/06/01 - 2012/08/31	Scientific introduction to robotic grasp planning. Introduction to GraspIt simulator and applications in robotics. Integration of multi-modal data acquisition devices.	Hussam Al-Hussein (Master Student, Mechanical Engineering, Khalifa University)

Other jury / evaluation

	Activity description	Institution / Organization
2013/03/01 - 2013/04/30	Invited evaluator in FP7-ICT ECHORD project (European Clearing House for Open Robotics Development) : evaluation of the experiments InterAID and ODEUO (outcomes of technology transfer experiments that have been funded by the European Commission).	Università degli Studi della Campania Luigi Vanvitelli, Italy

Distinctions

Award

2024	IOP Outstanding Reviewer Awards 2024: "Machine Learning: Science and Technology"
	IOP Publishing Ltd, United Kingdom
2022	CHUC research awards 2022 - best article (translational research)
	Centro Hospitalar e Universitário de Coimbra EPE, Portugal
2019	Janssen Neuroscience RWE Awards 2019 - clinical series
	Janssen Pharmaceutica NV, Belgium
2007	University of Coimbra - Top 3% best students award
	Universidade de Coimbra, Portugal
2007	University of Coimbra - Faculty of Sciences and Technology - best students merit award
	Universidade de Coimbra, Portugal

2006	University of Coimbra - Top 3% best students award
	Universidade de Coimbra, Portugal

2006	BPI-FCTUC best biomedical engineering student award
	Universidade de Coimbra Faculdade de Ciencias e Tecnologia, Portugal

2006	University of Coimbra - Faculty of Sciences and Technology - best students merit award
	Universidade de Coimbra, Portugal

2005	University of Coimbra - Top 3% best students award
	Universidade de Coimbra, Portugal

2005	BPI-FCTUC best biomedical engineering student award
	Universidade de Coimbra Faculdade de Ciencias e Tecnologia, Portugal

2005	University of Coimbra - Faculty of Sciences and Technology - best students merit award
	Universidade de Coimbra, Portugal

2003	BPI-FCTUC best biomedical engineering student award
	Universidade de Coimbra Faculdade de Ciencias e Tecnologia, Portugal

1996	1st place, I Internal Mathematical Olympiad
	High School E.B. 2,3/S Pedro da Fonseca, Portugal