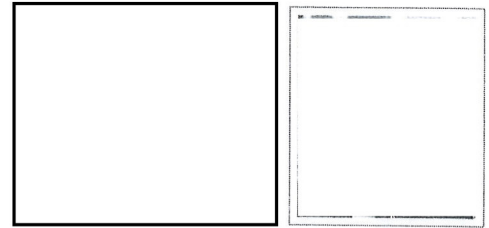


Matteo Mancini

Curriculum Vitae



Research Experience

Cardiff University, Cardiff, UK

May, 2019 – present **Research fellow**, working on the project "Building a meaningful biomarker of myelin" (BaMBoo) to study the relationship between myelin and brain function, funded by the **Wellcome Trust** through a **Sir Henry Postdoctoral Fellowship** (awarded to MM).

Polytechnique Montreal, Montreal, Canada

July, 2019 – March, 2020 **Visiting research fellow**, working on biomarkers of myelin estimated from quantitative MRI.

University College London, London, UK

July, 2017 – April, 2019 **Research associate**, working on two different projects: (1) reconstruction of white matter pathways from diffusion MRI data for surgical planning purposes; (2) combining MRI and histology in ex vivo human brains using machine learning techniques.

Santa Lucia Foundation, Rome, Italy

January, 2017 – June, 2017 **Research assistant**, analysis of functional MRI and concurrent TMS-EEG data in multiple cohorts of patients (general anxiety disorder, stroke).

University of Sussex, Brighton, UK

October, 2015 – December, 2016 **Research intern**, analysis and modelling of functional and diffusion MRI data for a multimodal characterization of the effects of transcranial magnetic stimulation in healthy subjects and patients (mild cognitive impairment, Alzheimer's disease), supervisor: prof. Mara Cercignani.

University Medical Center, Utrecht, Netherlands

September, 2015 **Research intern**, analysis and modelling of diffusion MRI data to characterise structural white matter damage in Alzheimer's disease, supervisor: dr. Martijn van den Heuvel.

Santa Lucia Foundation, Rome, Italy

January, 2014 – August, 2015 **Research intern**, analysis and modelling of functional MRI and concurrent tDCS-EEG data with specific focus on characterising connectivity patterns in healthy subjects and patients (myotonic dystrophy, Alzheimer's disease), supervisor: dr. Marco Bozzali.

Italian National Institute of Health, Rome, Italy

January, 2014 – August, 2015 **Research intern**, developing of hardware and software for MR-safe non-invasive carotid stimulation through neck suction, supervisor: dr. Giovanni Calcagnini.

Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston

July, 2013 – September, 2013 **Research intern**, analysis of functional MRI data and cardiovascular signals using multivariate techniques, supervisors: dr. Vitaly Napadow and dr. Riccardo Barbieri.

Education

- 2014 – 2017 : **PhD (*Doctor Europaeus*), Applied Electronics**, *University of Rome "Roma Tre"*, Rome, Italy, Thesis: "Combining neuroimaging and brain stimulation: A connectomics perspective". Supervisor: prof. Silvia Conforto.
- 2011 – 2013 : **MSc (*cum laude*), Bioengineering**, *University of Rome "Roma Tre"*, Rome, Italy, Thesis: "Joint independent component analysis of fMRI data and cardiovascular signals for the investigation of central autonomic control". Supervisor: dr. Giovanni Calcagnini.
- 2008 – 2011 : **BSc, Clinical Engineering**, *University of Rome "La Sapienza"*, Rome, Italy, Thesis: "Wireless technologies for drugs traceability: evaluation of the thermal effects". Supervisor: dr. Francesca Apollonio.

Funding

- 2019 –present **Sir Henry Wellcome Postdoctoral Fellowship**, awarded by the **Wellcome Trust** through a competitive funding call.
300000 GBP
- 2019 **NVIDIA GPU Grant**, awarded by **NVIDIA Corporation**.
1000 GBP
- 2016 **Travel Grant**, awarded by the **Gurantors of Brain**.
800 GBP
- 2014 – 2016 **PhD Scholarship**, awarded by the **University of Rome "Roma Tre"**.
60000 EUR
- 2013 **Research abroad grant**, awarded by the **University of Rome "Roma Tre"**.
2100 EUR

Awards

- 2020 **3rd place in the 2nd round of the IronTract Challenge** organised by the **Martinos Center for Biomedical Imaging at Massachusetts General Hospital and QMENTA**, prize: 500USD.
- 2020 **"Magna cum laude award"** for the abstract *"Myelin-sensitive Quantitative Maps: Two's Company, Three's a Crowd?"* presented at the virtual **Annual Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM) 2020**.
- 2019 **Winner of the Sussex Neuroscience Image Competition** organised by the **Department of Neuroscience, Brighton and Sussex Medical School**.
- 2016 **"Magna cum laude award"** for the abstract *"Neurodegeneration simulation in the connectome: a heuristic approach to unfold the key white matter pathways in Alzheimer's disease"* presented at the **Annual Meeting of the ISMRM 2016** in Singapore.

Skills

- Programming Languages Python, MATLAB, C, C++
- Neuroimaging software MRtrix3, FreeSurfer, FSL, ANTs, Nipype, Dipy
- Developer tools Docker, git, Sun Grid Engine (SGE)
- Web Technologies HTML 5, CSS, Hugo, Flask

Teaching

- August, 2021 **Lead teaching assistant**, NeuroMatch Academy - Deep Learning, reference: prof. Konrad Kording.
- July, 2020 **Lead teaching assistant**, NeuroMatch Academy - Computational Neuroscience, reference: prof. Konrad Kording.
- Spring, 2018 **Guest lecturer for the course "Electrical safety"**, Department of Medical Physics and Biomedical Engineering, University College London, reference: dr. Anne Vanhoostenberghe.
- Spring, 2015 **Guest lecturer for the course "Telemedicine"**, Department of Engineering, University of Rome "Roma Tre", reference: dr. Giovanni Calcagnini.
- Fall, 2013 **Guest lecturer for the course "Maths 1"**, Department of Engineering, University of Rome "Roma Tre", reference: prof. Filippo Tolli.

Workshops and other projects

- 2020 –present **Hackathon Co-Chair and Member of the Open Science Special Interest Group.**
Organization for Human Brain Mapping
- 2020 – 2021 **Co-organiser of the ISMRM Secret Sessions 2021.**
International Society for Magnetic Resonance in Medicine
- 2021 **Organiser of the Brainhack Micro2Macro, 26-29/01/2021.**
Brainhack Global 2020
- 2019 – 2020 **Co-organiser of the ISMRM Secret Sessions 2020.**
International Society for Magnetic Resonance in Medicine
- 2020 **Organiser of the White Matter Study Group Virtual Meeting: "White Matter Connectivity - An MRI Physicist-Network Scientist Debate", 21/05/2020.**
International Society for Magnetic Resonance in Medicine
- 2018 **Co-organiser of the Career Workshop, 08/11/2018.**
Centre for Medical Image Computing, University College London
- 2010 – 2015 **Project coordinator for the DUA program (i.e. anticipated university program).**
VN Servizi s.r.l., Department of engineering, University of Rome "Roma Tre".

Invited Talks

- 25/06/2021 **"Successes in Open Science"**, *Annual Meeting of the Organization for Human Brain Mapping (OHBM) - Symposium: "Addressing the Social Limitations in Open Science"*, virtual event.
- 09/03/2021 **"Turbo-charging Neurology Research into Clinical Practice"**, *Panel discussion - Webinar organized by QMENTA*, virtual event.
- 22/01/2021 **"A new ERA for meta-analysis: building Executable Research Articles"**, *Evidence Synthesis & Meta-Analysis in R Conference (ESMARConf)*, virtual event.
- 06/12/2019 **"Chasing brain functional microstructure: a recipe with bucatini"**, *Neuroimaging Seminars*, King's College London, London.
- 25/11/2019 **"Myelin Maps - Or why you should stop buying fat-free brains"**, *Feindel Brain Imaging Lecture Series*, McGill University, Montreal.
- 04/09/2019 **"Rogue Matter: A Sparse Wars Story"**, *Laboratory for Computational Neuroimaging, MGH Martinos Center for Biomedical Imaging*, Boston.
- 09/03/2019 **"The diffusion MRI-based connectome: promises and pitfalls"**, *LASSE - Latino-American Summerschool on Epilepsy*, Sao Paulo.
- 12/09/2018 **"Bigger brains: building a bridge between histology and MRI"**, *European Laboratory for Non-linear spectroscopy*, University of Florence, Florence.

- 27/07/2018 “Image-to-image translation for histology-MRI registration”, *{U/I}CL Biomedical Imaging Symposium*, Imperial College London, London.
- 24/03/2018 “Brain structural networks: the quest for the connectome”, *ILAE British Chapter Epilepsy Neuroimaging Course*, Chalfont Centre, Chalfont St Peter.
- 05/04/2017 “About brain networks and graph theory”, *Neuroimaging Methods Seminars*, University of Sussex, Brighton.

Editorial activity

- 2021 –present **Academic Editor**, *International Journal of Biomedical Imaging*, Hindawi.
- 2021 –present **Topic Editor**, *Frontiers in Neuroscience*, Special Issue: "Connectivity-Driven Approaches for Effective Non-Invasive Brain Stimulation", Section: "Brain Imaging Methods".
- Reviewer**, *NeuroImage*, *Science Advances*, *Magnetic Resonance in Medicine*, *Nature Scientific Reports*, *Human Brain Mapping*, *Brain Topography*, *Network Neuroscience*, *Brain Connectivity*, *Brain Stimulation*, *Journal of Open Science Software*.

Publications

H-index: 12, Source: [Web of Science](#), ORCID: 0000-0001-7194-4568.

Journal Papers

- 2021 **M. Mancini**, Q. Tian, Q. Fan, M. Cercignani, and S. Y. Huang. Dissecting whole-brain conduction delays through mri microstructural measures. *Brain Structure and Function*, pages 1–13. Springer, 2021.
- 2021 K. G. Schilling, F. Rheault, L. Petit, C. B. Hansen, V. Nath, F.-C. Yeh, G. Girard, M. Barakovic, J. Rafael-Patino, T. Yu, E. Fischi-Gomez, M. Pizzolato, M. Ocampo-Pineda, S. Schiavi, E. J. Canales-Rodríguez, A. Daducci, C. Granziera, G. Innocenti, J.-P. Thiran, L. Mancini, S. Wastling, S. Coccozza, M. Petracca, G. Pontillo, **M. Mancini**, et al. Tractography dissection variability: what happens when 42 groups dissect 14 white matter bundles on the same dataset? *NeuroImage*, page 118502. Elsevier, 2021.
- 2021 E. Levitis, C. D. G. van Praag, R. Gau, S. Heunis, E. DuPre, G. Kiar, K. L. Bottenhorn, T. Glatard, A. Nikolaidis, K. J. Whitaker, **M. Mancini**, et al. Centering inclusivity in the design of online conferences—an ohbm–open science perspective. *GigaScience*, volume 10, page giab051. Oxford University Press, 2021.
- 2021 A. Harrewijn, E. M. Cardinale, N. A. Groenewold, J. M. Bas-Hoogendam, M. Aghajani, K. Hilbert, N. Cardoner, D. Porta-Casteràs, S. Gosnell, R. Salas, A. P. Jackowski, P. M. Pan, G. A. Salum, K. S. Blair, J. R. Blair, M. Z. Hammoud, M. R. Milad, K. L. Burkhouse, K. L. Phan, H. Schroeder, J. R. Strawn, K. Beesdo-Baum, N. Jahanshad, S. I. Thomopoulos, R. Buckner, J. A. Nielsen, J. W. Smoller, J. C. Soares, B. Mwangi, M.-J. Wu, G. B. Zunta-Soares, M. Assaf, G. J. Diefenbach, P. Brambilla, E. Maggioni, D. Hofmann, T. Straube, C. Andreescu, R. Berta, E. Tamburo, R. B. Price, G. G. Manfro, F. Agosta, E. Canu, C. Cividini, M. Filippi, M. Kostić, A. M. Jovanovic, B. A. Alberton, B. Benson, G. F. Freitag, C. A. Filippi, A. L. Gold, E. Leibenluft, G. V. Ringlein, K. E. Werwath, H. Zwiebel, A. Zugman, H. J. Grabe, S. Van der Auwera, K. Wittfeld, H. Völzke, R. Bülow, N. L. Balderston, M. Ernst, C. Grillon, L. R. Mujica-Parodi, H. Helena van Nieuwenhuizen, H. D. Critchley, E. Makovac, **M. Mancini**, et al. Cortical and subcortical brain structure in generalized anxiety disorder: findings from 28 research sites in the enigma-anxiety working group. *Translational psychiatry*, volume 11, pages 1–15. Nature Publishing Group, 2021.

- 2021 R. Gau, S. Noble, K. Heuer, K. L. Bottenhorn, I. P. Bilgin, Y.-F. Yang, J. M. Huntenburg, J. M. Bayer, R. A. Bethlehem, S. A. Rhoads, C. Vogelbacher, V. Borghesani, E. Levitis, H.-T. Wang, S. Van Den Bossche, X. Kobeleva, J. H. Legarreta, S. Guay, S. M. Atay, G. P. Varoquaux, D. C. Huijser, M. S. Sandström, P. Herholz, S. A. Nastase, A. Badhwar, G. Dumas, S. Schwab, S. Moia, M. Dayan, Y. Bassil, P. P. Brooks, **M. Mancini**, et al. Brainhack: Developing a culture of open, inclusive, community-driven neuroscience. *Neuron*, volume 109, pages 1769–1775. Elsevier, 2021.
- 2021 T. Carandini, **M. Mancini**, I. Bogdan, C. L. Rae, A. W. Barritt, A. Sethi, N. Harrison, W. Rashid, E. Scarpini, D. Galimberti, M. Bozzali, and M. Cercignani. Disruption of brainstem monoaminergic fibre tracts in multiple sclerosis as a putative mechanism for cognitive fatigue: a fixel-based analysis. *NeuroImage: Clinical*, 2021.
- 2021 T. Carandini, **M. Mancini**, I. Bogdan, C. L. Rae, A. W. Barritt, M. Clerico, A. Sethi, N. Harrison, W. Rashid, E. Scarpini, et al. In vivo evidence of functional disconnection between brainstem monoaminergic nuclei and brain networks in multiple sclerosis. *Multiple sclerosis and related disorders*, page 103224. Elsevier, 2021.
- 2021 T. Boshkovski, J. Cohen-Adad, B. Misic, I. Arnulf, J.-C. Corvol, M. Vidailhet, S. Lehéricy, N. Stikov, and **M. Mancini**. The myelin-weighted connectome in parkinson's disease. *Movement Disorders*. Wiley Online Library, 2021.
- 2020 A. Zugman, A. Harrewijn, E. M. Cardinale, H. Zwiebel, G. F. Freitag, K. E. Werwath, J. M. Bas-Hoogendam, N. A. Groenewold, M. Aghajani, K. Hilbert, N. Cardoner, D. Porta-Casteràs, S. Gosnell, R. Salas, K. S. Blair, J. R. Blair, M. Z. Hammoud, M. Milad, K. Burkhouse, K. L. Phan, H. K. Schroeder, J. R. Strawn, K. Beesdo-Baum, S. I. Thomopoulos, H. J. Grabe, S. Van der Auwera, K. Wittfeld, J. A. Nielsen, R. Buckner, J. W. Smoller, B. Mwangi, J. C. Soares, M. Wu, G. B. Zunta-Soares, A. P. Jackowski, P. M. Pan, G. A. Salum, M. Assaf, G. J. Diefenbach, P. Brambilla, E. Maggioni, T. Hofmann, David Straube, C. Andreescu, R. Berta, E. Tamburo, R. Price, G. G. Manfro, H. D. Critchley, E. Makovac, **M. Mancini**, et al. Mega-analysis methods in enigma: The experience of the generalized anxiety disorder working group. *Human Brain Mapping*, pages 1–23, 2020.
- 2020 **M. Mancini**, A. Karakuzu, J. Cohen-Adad, M. Cercignani, T. E. Nichols, and N. Stikov. An interactive meta-analysis of mri biomarkers of myelin. *Elife*, volume 9, page e61523. eLife Sciences Publications Limited, 2020.
- 2020 **M. Mancini**, A. Casamitjana, L. Peter, E. Robinson, S. Crampsie, D. L. Thomas, J. L. Holton, Z. Jaunmuktane, and J. E. Iglesias. A multimodal computational pipeline for 3d histology of the human brain. *Scientific Reports*, volume 10, 2020.
- 2020 L. Serra, M. Bruschini, C. Di Domenico, **M. Mancini**, G. B. Gabrielli, S. Bonarota, C. Caltagirone, M. Cercignani, C. Marra, and M. Bozzali. Behavioral psychological symptoms of dementia and functional connectivity changes: a network-based study. *Neurobiology of Aging*, volume 94, pages 196–206, 2020.
- 2020 J. Koenig, B. Abler, I. Agartz, T. Åkerstedt, O. A. Andreassen, M. Anthony, K. Bertsch, R. C. Brown, R. Brunner, L. Carnevali, H. Critchley, K. R. Cullen, E. J. de Geus, I. Dziobek, H. Fischer, H. Flor, M. Gaebler, P. J. Gianaros, M. J. Giummarra, S. Greening, S. Guendelman, J. Heathers, S. C. Herpertz, M. X. Hu, S. Jentschke, M. Kaess, T. Kaufmann, B. Klimes-Dougan, S. Koelsch, M. Krauch, D. Kumral, F. Lamers, T.-H. Lee, M. Lekander, F. Lin, M. Lotze, E. Makovac, **M. Mancini**, et al. Cortical thickness and resting state cardiac function across the lifespan: A cross-sectional pooled mega analysis. *Psychophysiology*, page e13688, 2020.
- 2020 T. Boshkovski, L. Kocarev, J. Cohen-Adad, B. Mišić, S. Lehéricy, N. Stikov, and **M. Mancini**. The r1-weighted connectome: complementing brain networks with a myelin-sensitive measure. *Network Neuroscience*, pages 1–34. MIT Press, 2020.

- 2019 **M. Mancini**, S. B. Vos, V. N. Vakharia, A. G. O'Keefee, K. Trimmel, F. Barkhof, C. Dorfer, S. Soman, G. P. Winston, C. Wu, et al. Automated fiber tract reconstruction for surgery planning: Extensive validation in language-related white matter tracts. *NeuroImage: Clinical*, volume 23, page 101883, 2019.
- 2019 M. Galovic, I. Baudracco, E. Wright-Goff, G. Pillajo, P. Nachev, B. Wandschneider, F. Woermann, P. Thompson, S. Baxendale, A. W. McEvoy, M. Nowell, **M. Mancini**, et al. Association of piriform cortex resection with surgical outcomes in patients with temporal lobe epilepsy. *JAMA neurology*, volume 76, pages 690–700, 2019.
- 2019 S. C. de Lange, L. H. Scholtens, L. H. van den Berg, M. P. Boks, M. Bozzali, W. Cahn, U. Dannlowski, S. Durston, E. Geuze, N. E. van Haren, M. H. Hillegers, K. Koch, M. Jurado, **M. Mancini**, et al. Shared vulnerability for connectome alterations across psychiatric and neurological brain disorders. *Nature human behaviour*, volume 3, pages 988–998, 2019.
- 2019 L. Carnevali, **M. Mancini**, J. Koenig, E. Makovac, D. R. Watson, F. Meeten, H. D. Critchley, and C. Ottaviani. Cortical morphometric predictors of autonomic dysfunction in generalized anxiety disorder. *Autonomic Neuroscience*, volume 217, pages 41–48, 2019.
- 2018 **M. Mancini**, G. Giulietti, N. Dowell, B. Spanò, N. Harrison, M. Bozzali, and M. Cercignani. Introducing axonal myelination in connectomics: A preliminary analysis of g-ratio distribution in healthy subjects. *NeuroImage*, volume 182, pages 351–359, 2018.
- 2018 **M. Mancini** and M. Cercignani. Network models in neuroimaging: a survey of multimodal applications. *Fundamenta Informaticae*, volume 163, pages 63–91, 2018.
- 2018 M. C. Pellicciari, S. Bonni, V. Ponzio, A. M. Cinnera, **M. Mancini**, E. P. Casula, F. Sallustio, S. Paolucci, C. Caltagirone, and G. Koch. Dynamic reorganization of tms-evoked activity in subcortical stroke patients. *NeuroImage*, volume 175, pages 365–378, 2018.
- 2018 E. Makovac, **M. Mancini**, S. Fagioli, D. R. Watson, F. Meeten, C. L. Rae, H. D. Critchley, and C. Ottaviani. Network abnormalities in generalized anxiety pervade beyond the amygdala-pre-frontal cortex circuit: Insights from graph theory. *Psychiatry Research: Neuroimaging*, volume 281, pages 107–116, 2018.
- 2018 E. Makovac, S. Garfinkel, A. Bassi, B. Basile, E. Macaluso, M. Cercignani, G. Calcagnini, E. Mattei, **M. Mancini**, D. Agalliu, et al. Fear processing is differentially affected by lateralized stimulation of carotid baroreceptors. *Cortex*, volume 99, pages 200–212, 2018.
- 2018 G. Koch, S. Bonni, M. C. Pellicciari, E. P. Casula, **M. Mancini**, R. Esposito, V. Ponzio, S. Picazio, F. Di Lorenzo, L. Serra, et al. Transcranial magnetic stimulation of the precuneus enhances memory and neural activity in prodromal alzheimer's disease. *NeuroImage*, volume 169, pages 302–311, 2018.
- 2017 **M. Mancini**, C. Mastropasqua, S. Bonni, V. Ponzio, M. Cercignani, S. Conforto, G. Koch, and M. Bozzali. Theta burst stimulation of the precuneus modulates resting state connectivity in the left temporal pole. *Brain topography*, volume 30, pages 312–319, 2017.
- 2017 L. Serra, **M. Mancini**, M. Cercignani, C. Di Domenico, B. Spanò, G. Giulietti, G. Koch, C. Marra, and M. Bozzali. Network-based substrate of cognitive reserve in alzheimer's disease. *Journal of Alzheimer's Disease*, volume 55, pages 421–430, 2017.
- 2017 F. Barban, **M. Mancini**, M. Cercignani, F. Adriano, R. Perri, R. Annicchiario, G. A. Carlesimo, C. Ricci, M. G. Lombardi, V. Teodonna, et al. A pilot study on brain plasticity of functional connectivity modulated by cognitive training in mild alzheimer's disease and mild cognitive impairment. *Brain sciences*, volume 7, page 50, 2017.
- 2016 **M. Mancini**, D. Brignani, S. Conforto, P. Mauri, C. Miniussi, and M. C. Pellicciari. Assessing cortical synchronization during transcranial direct current stimulation: A graph-theoretical analysis. *NeuroImage*, volume 140, pages 57–65, 2016.

2016 L. Serra, **M. Mancini**, G. Silvestri, A. Petrucci, M. Masciullo, B. Spanò, M. Torso, C. Mastropasqua, M. Giacanelli, C. Caltagirone, et al. Brain connectomics' modification to clarify motor and nonmotor features of myotonic dystrophy type 1. *Neural plasticity*, volume 2016, page 2696085, 2016.

2016 L. Serra, M. Cercignani, M. Bruschini, L. Cipolotti, **M. Mancini**, G. Silvestri, A. Petrucci, E. Bucci, G. Antonini, L. Licchelli, et al. "i know that you know that i know": neural substrates associated with social cognition deficits in dm1 patients. *PloS one*, volume 11, page e0156901, 2016.

Book Chapters

2022 **M. Mancini** and J. E. Iglesias. Synthesis for image analysis across modalities: Application to registration and segmentation. In *Biomedical Image Synthesis and Simulations*. Elsevier, 2022.

2018 M. Cercignani, **M. Mancini**, and C. Gandini Wheeler-Kingshot. Connettività e connettomica: promesse e tranelli. In *Immagini biomediche: nuove tendenze in tecnologia, metodi e applicazioni*, pages 163–168. Patron, 2018.

2013 **M. Mancini**. La diaspora dei cervelli. In *Mettere a frutto i talenti: Esperienze e testimonianze sull'Italia di oggi*, pages 153–155. Franco Angeli, 2013.

Papers in Proceedings

2021 A. Casamitjana, **M. Mancini**, and J. E. Iglesias. Synth-by-reg (sbr): Contrastive learning for synthesis-based registration of paired images. In *SASHIMI 2021: Simulation and Synthesis in Medical Imaging (MICCAI 2021 Woekshop)*, 2021.

2019 **M. Mancini**, S. Crampsie, D. L. Thomas, Z. Jaunmuktane, J. L. Holton, and J. E. Iglesias. Hierarchical joint registration of tissue blocks with soft shape constraints for large-scale histology of the human brain. In *2019 IEEE 16th International Symposium on Biomedical Imaging (ISBI 2019)*, pages 666–669, 2019.

2018 A. Granados, **M. Mancini**, S. B. Vos, O. Lucena, V. Vakharia, R. Rodionov, A. Miserocchi, A. W. McEvoy, J. S. Duncan, R. Sparks, et al. A machine learning approach to predict instrument bending in stereotactic neurosurgery. In *International Conference on Medical Image Computing and Computer-Assisted Intervention*, pages 238–246, 2018.

2016 **M. Mancini**, G. Giulietti, B. Spanò, M. Bozzali, M. Cercignani, and S. Conforto. Estimating multimodal brain connectivity in multiple sclerosis: an exploratory factor analysis. In *2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pages 1131–1134, 2016.

2016 **M. Mancini**, M. A. de Reus, L. Serra, M. Bozzali, M. P. van den Heuvel, M. Cercignani, and S. Conforto. Network attack simulations in alzheimer's disease: The link between network tolerance and neurodegeneration. In *2016 IEEE 13th International Symposium on Biomedical Imaging (ISBI)*, pages 237–240, 2016.

2015 **M. Mancini**, M. C. Pellicciari, D. Brignani, P. Mauri, C. De Marchis, C. Miniussi, and S. Conforto. Automatic artifact suppression in simultaneous tdcS-eeg using adaptive filtering. In *2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pages 2729–2732, 2015.

2015 **M. Mancini**, E. Mattei, F. Censi, G. Calcagnini, M. Bozzali, and S. Conforto. Functional connectivity during autonomic stimulation estimated using spectral coherence of fmri signals. In *2015 7th International IEEE/EMBS Conference on Neural Engineering (NER)*, pages 1044–1047, 2015.

2015 E. Mattei, F. Censi, M. Triventi, **M. Mancini**, A. Napolitano, E. Genovese, V. Cannatà, R. Fal-saperla, and G. Calcagnini. Wrong detection of ventricular fibrillation in an implantable cardioverter defibrillator caused by the movement near the mri scanner bore. In *2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pages 7200–7203, 2015.

- 2014 **M. Mancini**, E. Mattei, F. Censi, B. Basile, M. Bozzali, and G. Calcagnini. Investigation of baroreflex autonomic control by spectral coherence of fmri independent components and neck suction stimulation signal. In *Computing in Cardiology 2014*, pages 1005–1008, 2014.
- 2014 **M. Mancini**, G. Calcagnini, E. Mattei, F. Censi, M. Bozzali, and R. Barbieri. Modeling heart beat dynamics and fmri signals during carotid stimulation by neck suction. In *2014 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, pages 6647–6650, 2014.
- 2014 E. Mattei, F. Censi, **M. Mancini**, A. Napolitano, E. Genovese, V. Cannatà, G. Burriesci, R. Falsaperla, and G. Calcagnini. Currents induced by fast movements inside the mri room may cause inhibition in an implanted pacemaker. In *2014 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, pages 890–893, 2014.

Referees

Prof. Mara Cercignani

Head of MRI

Cardiff Brain Research Imaging Centre

Cardiff University

✉ CercignaniM@cardiff.ac.uk

Dr. Juan Eugenio Iglesias

Lecturer in Radiology

MGH & Harvard Medical School

✉ jgiesiasgonzalez@mgh.harvard.edu

Dr. Giovanni Calcagnini

Researcher, Department of

cardiovascular, metabolic-endocrine

and aging diseases

Italian National Institute of Health

✉ giovanni.calcagnini@iss.it

15/01/2022

