



Marco Castellaro

Accademic position

- Mar 2020 - **Research scholarship**, *University of Verona*, Italy, "Borsa di studio di ricerca" at Today the Department of Neurosciences, Biomedicine and Movement.
Supervisor: Prof. Massimiliano Calabrese
- Feb 2020 - **Contract Lecturer**, *University of Padova*, Italy, 3 CFU of the Bioimaging Course.
Feb 2021 Resp. course Prof. Mariapia Saccomani
- Mar 2018 - **Senior post-doctoral researcher**, *University of Padova*, Italy, "Assegni di ricerca"
Feb 2020 at the Padova Neuroscience Center (Italian ministry s.s.d. ING-INF/06).
Supervisor: Prof. Maurizio Corbetta
- Mar 2016 - **Junior post-doctoral researcher**, *University of Padova*, Italy, "Assegni di ricerca"
Mar 2018 junior: bando 2015" at the Department of Information Engineering (Italian ministry s.s.d. ING-INF/06).
Supervisor: Prof. Alessandra Bertoldo
- Feb 2014 - **Junior post-doctoral researcher**, *University of Padova*, Italy, "Assegni di ricerca"
Feb 2016 junior: bando 2013" at the Department of Information Engineering (Italian ministry s.s.d. ING-INF/06).
Supervisor: Prof. Alessandra Bertoldo

Summary of scientific production

Scopus-indexed journal papers, 23 (5 as first author; 4 as second author; 11 without the PhD supervisor) .

Scopus-indexed conference papers, 7 (4 as second author; 3 without the PhD supervisor).

Other conference papers and abstracts, 64 (16 as first author; 18 as second author; 11 without the PhD supervisor; 10 oral presentations and 54 poster presentations).

Citations **329 (Google Scholar), 229 (Scopus), 196 (WoS).**

H-index **10 (Google Scholar), 8 (Scopus), 6 (WoS).**

Bibliometric indexes

ORCID, orcid.org/0000-0002-1203-2670.

Scopus, www.scopus.com/authid/detail.uri?authorId=55523754600.

Publons, <https://publons.com/researcher/3213218/marco-castellaro>.

Google Scholar, scholar.google.it/citations?user=9FaYL9gAAAAJ.

Education

- Mar 2014 **Ph.D. in Information Engineering, specialization in Bioengineering**, *University of Padova*, Italy.
- Oct 2007 – **Master of Science in Bioengineering**, *University of Padova*, Italy.
Mar 2010
- Oct 2003 – **Bachelor Degree in Biomedical Engineering**, *University of Padova*, Italy.
Oct 2007
- Jul 2003 **Technical Industrial high-school diploma**, *I.T.I.S. C. Zuccante, Mestre*, Italy.

Grants

- 2020 **Research scholarship**, "*Borsa di studio di ricerca*" for research activity at the *Department of Neurosciences, Biomedicine and Movement*, on the topic: "*Design, development and optimization of an MRI multi-parametric research protocol and of an integrated information system to investigate Multiple Sclerosis*", Funded by *University of Verona*, Budget: about 26.400€.
- 2018 – 2020 **Fellowship**, "*Assegno di ricerca grant*" for the post-doctoral research activity at the *Padova Neuroscience Center* on the topic: "*Functional and structural integration of multimodal brain images*" (*Italian ministry s.s.d. ING-INF/06*), Funded by *University of Padova*, Budget about 60,000.00€.
- 2016 – 2017 **Fellowship**, "*Assegno di ricerca junior 2015*" for the post-doctoral research activity at the *department of information engineering* on the topic: "*Quantitative in-vivo estimation of magnetic susceptibility tensor imaging to monitor iron content in the human brain of multiple sclerosis patients*" (*Italian ministry s.s.d. ING-INF/06*), Funded by *University of Padova*, Budget about 38,000.00€.
- 2014 – 2015 **Fellowship**, "*Assegno di ricerca junior 2013*" for the post-doctoral research activity at the *department of information engineering* on the topic: "*Quantitative assessment of cerebral perfusion by noninvasive arterial spin labeling MRI*" (*Italian ministry s.s.d. ING-INF/06*), Funded by *University of Padova*, Budget about 38,000.00€.
- 2013 **Short Term Mission Grant**, *Short Term Scientific Mission to the University of Oxford* on the topic: "*Assess of ASL quantification strategies with compartmental and model-free approaches*", Funded by *COST EU Action BM1103*, Budget about 2,500.00€.
- 2010 – 2013 **University scholarship**, "*Borsa di dottorato*" for attending the *Ph.D. Course in Information Engineering - Specialization Bioengineering*, Funded by *University of Padova*, Budget about 40,000.00€.

Partecipation to funded research projects

- 2013 – 2016 **NET-2013-02355313 funded by Italian Ministry of Health: "Magnetic resonance imaging in drug-refractory temporal lobe epilepsy: standardization of advanced structural and functional protocols at 3T, to identify hippocampal and extra-hippocampal abnormalities."**, *Principal investigator: Paolo Vitali, IR-CCS Mondino*, Budget: 1,262,819.00€, Role: Responsible for Arterial Spin Labelling sequence and analysis optimization.
- 2013 – 2016 **GR-2013-02355322 funded by Italian Ministry of Health: "Longitudinal multi-parametric clinical, CSF and MRI study aimed at predicting disability progression in Multiple Sclerosis."**, *Principal investigator: Massimiliano Calabrese, University of Verona*, Budget: 223,674.00€, Role: Responsible for MRI protocol setup and analysis.
- 2013 – 2016 **BM1103 funded by Cost-Action EU: "Arterial spin labelling Initiative in Dementia (AID)"**, *Principal investigator: Xavier Golay, University College London*, Budget: 374,000.00€, Role: Active member of WP2.
- 2015 – 2016 **PA0124 funded by Progressive Multiple Sclerosis Alliance "Can the degree of meningeal inflammation and cortical pathology be used to stratify early progressive MS patients?"**, *Principal investigator: Massimiliano Calabrese, University of Verona*, Budget: 68,673.00€, Role: Responsible for MRI protocol setup and analysis.
- 2017 – 2020 **FISM 2016/R/23 funded by Fondazione Italiana Sclerosi Multipla "Structural and inflammatory components of cortical pathology in multiple sclerosis"**, *Principal investigator: Roberta Magliozzi, University of Verona*, Budget: 80,000.00€, Member of the research unit. Role: Responsible for ex vivo brain tissue preparation for MRI procedures, MRI protocol setup and MRI analysis.
- 2019 – Today **Cooperative Agreement NIMH R24MH114705 funded by National Institutes of Healths "Bids-Derivatives: a data standard for derived data and models in the brain initiative"**, *Principal investigator: Russell Poldrack, Stanford University*, Budget: 1,400,000.00\$, Role: Lead of the validation pipeline implementation team for BIDS Extension on Arterial Spin Labelling - BEP005.
- 2019 – Today **NSF OAC-1760950 funded by National Institutes of Healths "Breaking down barriers for reproducible neuroimaging data analyses"**, *Principal investigator: Russell Poldrack, Stanford University*, Budget: 599,000.00\$, Role: Part of the moderator team for BIDS Extension on Arterial Spin Labelling - BEP005.
- 2020 – Today **PELICAN - Pilot fMRI project funded by Padova Neuroscience Center, University of Padova "Boosting source imaging accuracy with Patient-specific Electrical Conductivity of brain lesion"**, *Principal investigator: Ilaria Mazzonetto, University of Padova*, Budget: 5,280.00€, Role: Responsible of MRI protocol setup and optimization.
- 2019 – Today **CA18206 funded by Cost-Action EU: "Glioma MR Imaging 2.0 (GliMR)"**, *Principal investigator: Esther Warnert, Esther Warnert*, Budget: 150,000.00€, Role: Active member of WP1 and WP3.

Research profile

My research activity focuses on the analysis of biomedical images, with main focus on advanced magnetic resonance imaging techniques. Among them the main topics are A) Development of Arterial Spin Labelling sequences and modeling techniques; B) Development of novel deconvolution algorithms applied to perfusion imaging; C) Magnetic resonance imaging applied to diagnosis and monitoring of Multiple Sclerosis; D) Bayesian kinetic modeling techniques. I participated to 17 international and 8 Italian conferences in which I have been invited three times to give an oral presentation. I have co-organized the congress of the Italian Chapter of ISMRM held in Padova in 2018 (<http://www.ismrm.it>). Being part of the governing council, I have participated to the scientific committee of the Annual meeting of the Italian Chapter of the ISMRM from 2015 up to 2020. I authored a chapter on Magnetic Resonance Imaging in the book "Basic neuroimaging: a guide to the methods and their applications", written in collaboration with various postdoc fellows from several European countries. I have authored a chapter in the book "Immagini biomediche: nuove tendenze in tecnologia, metodi e applicazioni". I participated in the setup of magnetic resonance imaging of four clinical trials of multiple sclerosis treatments (Roche MA30005 "Casting", Novartis CFTY720DIT15 "Evolution", Merck Serono MS200527-0080 and Novartis COMB157G23101). I designed and developed a web-based integrated portal for the University of Padova to help students and researchers to share biomedical images data and processing tools. The same platform is now installed at the University of Verona and has been customized to allow researchers in multiple sclerosis to collaboratively share research results. I took part to EU-Cost Action BM1103 being part of the Analysis Working Package 2 with focus on developing and standardizing Arterial Spin Labelling analysis methods. Recently I joined the EU-Cost Action CA18206 that aims to develop a new paradigm for imaging brain tumours. I am collaborating and developing the validation pipeline of the Brain Imaging Data Structure BEP-005 - Arterial Spin Labelling - (<https://bids.neuroimaging.io>).

Teaching profile

I started my teaching activity during the Ph.D. program at the University of Padova, and I continued this task during my post-doctoral activity, as teaching assistant of Prof. Alessandra Bertoldo for students in the Neuroengineering course (now Imaging for neuroscience) in 2011 and from 2013 up to 2019. My duty was to help students in the practical activity of the course, mainly consisting of helping preparing and explaining Matlab code and other open source softwares. In 2020 I held part of the Bioimmagini course (3 CFUs) at the University of Padova in the Bachelor's degree in Biomedical Engineering as a contract lecturer (help by Prof. Maria Pia Saccomani) in which I taught students the basis of biomedical imaging technologies.

Visiting periods

Sep 2012 – **Visiting PhD Student at Institute of Biomedical Engineering, University of Oxford, United Kingdom.**
March 2013
Local Supervisor Prof. Michael Chappell

Supervision of graduate students

- 2020 **Supervision of 1 student enrolled in BSc course in Biomedical Engineering**, *Department of Information Engineering*, University of Padova, Italy.
- 2011 – 2020 **Co-supervision of 13 students enrolled in MSc course in Bioengineering**, *Department of Information Engineering*, University of Padova, Italy.
- 2011 – 2018 **Co-supervision of 3 student in Erasmus placement project**, *Universities of Porto and Lisbon*, Portugal.

Teaching Activities

- 2020 **Bioimmagini (3 CFU of the 9 CFU Resp. course Prof. Mariapia Saccomani)**, *Master of Science in Bioengineering*, University of Padova, Italy.
- 2011 and 2013 – 2019 **Tutor for the course “Imaging for neuroscience” held by Prof. Alessandra Bertoldo**, *Master of Science in Bioengineering*, University of Padova, Italy.
- 2018 **DIERT: Acquisizione, trasmissione ed archiviazione dati in MN (1 CFU)**, *Nuclear Medicine - Medical Specialization School*, University of Padova, Italy.
- 2017 **Formazione a distanza: La risonanza magnetica nella sclerosi multipla oggi**, *AIM Group - accreditamento ECM*, Italy.

Invited Talks

- 2019 **Thinking outside of the brain: ASL body perfusion**, *ISMRM Italian Chapter, Milano.*, Italy.
- 2017 **Modeling of Arterial spin labeling"**, *ISMRM Italian Chapter, Gaeta*, Italy.
- 2013 **Perfusion MRI with Arterial spin labeling**, *ISMRM Italian Chapter, Perugia*, Italy.

Awards

- Magna cum laude Joint Annual Meeting ISMRM-ESMRMB - 2018 Paris, France
- Magna cum laude Joint Annual Meeting ISMRM-ESMRMB - 2014 Milan, Italy

Memberships of scientific societies

- 2020 **Full Member**, "International Society of Magnetic Resonance in Medicine".
- 2013 – 2019 **Trainee Member**, "International Society of Magnetic Resonance in Medicine".
- 2013 – 2020 **Member**, "Italian Chapter of International Society of Magnetic Resonance in Medicine".
- 2015 – 2020 **Technical-scientific member of the governing council**, "Italian Chapter of International Society of Magnetic Resonance in Medicine".
- 2013 – 2020 **Member**, "European Society of Magnetic Resonance in Medicine and Biology".

Journal and conferences review activity

- 2013 – 2019 **Journal of Cerebral Blood Flow and Metabolism.**
2015 – 2017 **BMC Neurology.**
2016 – 2017 **Medical Image Analysis.**
2016 **Journal of Magnetic Resonance Imaging**, Officially helped Dr. Alberto Bizzi.
2017 **Brain**, Officially helped Dr. Massimiliano Calabrese.
2014 – 2020 **Proceedings review activity - Italian Chapter of International Society of Magnetic Resonance in Medicine.**

Technical Courses

- November 2014 **Susceptibility weighted imaging and quantitative mapping**, Department of Neurology, Medical University of Graz, Austria.
Lectures organized by European Society of Magnetic Resonance in Medicine and Biology
September 2014 **Philips - Pulse Programming Course**, Eidgenössische Technische Hochschule Zürich, Switzerland.
Magnetic Resonance and Spettroscopy Sequence Pulse Programming Course organized by Gyrotools
June 2012 **Parallel Imaging: Basic and Advanced Transmission and Reception Concepts**, Würzburg, Germany.
Lectures organized by European Society of Magnetic Resonance in Medicine and Biology
September 2011 **Current Concepts in Spin Labelling and Contrast-Enhanced Perfusion MRI**, University of Oxford, United Kingdom.
Lectures organized by European Society of Magnetic Resonance in Medicine and Biology

Ph.D. thesis

- title *Quantitative neuroimaging of perfusion with arterial spin labeling: deconvolution and physiology-based models*
supervisor Prof. Alessandra Bertoldo, Ph.D.

Communication skills

- 2019 *European Researcher - Veneto Night 2019*, Coordinator of the Padova Neuroscience Center activity
2018 *European Researcher - Veneto Night 2018*, Creation of the promotinal video of the Padova Neuroscience Center

Computer science skills

- Programming Languages Java, C, C++, Php, Python
DataBase SQL, MySQL
Software Matlab, SPM, FSL, Freesurfer, ANTs, XNAT, Nipy, OpenTrials, GitHub

Operating Systems MS Windows up to 10, Linux Ubuntu up to 16.04, Mac OS up to High Sierra
MRI Philips MR-Paradise suite up to 5.3
Sequence Development

Languages Level (*)

| | | |
|---------|------------------|-----------------|
| English | Understanding C1 | Proficient user |
| | Speaking C1 | Proficient user |
| | Writing C2 | Proficient user |
| French | Understanding A1 | Basic user |
| | Speaking A1 | Basic user |
| | Writing A1 | Basic user |

(*) Common European Framework of Reference (CEF) level

Certification

GRE (Graduate Record Examination) - 2010

Publications

- In preparation **M. Castellaro**, R. Magliozzi, A. Tamanti, A. Palombit, S. Montemezzi, F. B. Pizzini, A. Bertoldo and M. Calabrese *"Alterations of Quantitative Susceptibility Mapping in Multiple Sclerosis are not related to cortical thinning: a Surface-based neuroimaging study"*.
- S. Facchini, C. Favaretto, **M. Castellaro**, A. Zangrossi, M. Zannin, M.G. Anglani, C. Baracchini, D. D'Avella, A. Della Puppa, C. Semenza, M. Corbetta *"Behavioral impairment in brain tumors and stroke: same or different components at the population level?"*.
- Submitted A.L. Bisogno, C. Favaretto, A. Zangrossi, E. Monai, S. Facchini, S. De Pellegrin, L. Pini, **M. Castellaro**, A. Maria Basile, C. Baracchini, M. Corbetta *"A low dimensional structure of neurological impairment in stroke"*, Submitted to Brain Communications.
- U. Villani, E. Silvestri, **M. Castellaro**, S. Schiavi, M. Anglani, S. Facchini, E. Monai, D. D'Avella, A. Della Puppa, D. Cecchin, M. Corbetta, A. Bertoldo *"Diffusion-based white matter models in brain tumours: fitting in presence of a model-microstructure mismatch"*, Submitted to IEEE Transaction on Biomedical Engineering (TBME).
- I. Mazzonetto, **M. Castellaro**, R.J. Cooper, S. Brigadoi *"Smartphone-based photogrammetry provides improved localization and registration of scalp-mounted neuroimaging sensors"*, Submitted to Neuroimage.

- Journals **M. Castellaro**, A. Tamanti, A.I. Pisani, F. B. Pizzini, F. Crescenzo and M. Calabrese "The Use of the Central Vein Sign in the Diagnosis of Multiple Sclerosis: A Systematic Review and Meta-analysis " *Diagnostics* (2020) in press, DOI: [10.3390/diagnostics10121025](https://doi.org/10.3390/diagnostics10121025).
- M. Castellaro**, M. Moretto, V. Baro, S. Brigadoi, E. Zanoletti, M. Anglani, L. Denaro, R. Dell'Acqua, A. Landi, F. Causin, D. d'Avella, and A. Bertoldo "Multishell diffusion MRI-Based tractography of the facial nerve in vestibular schwannoma" *American Journal of Neuroradiology* (2020) in press, DOI: [10.3174/ajnr.A6706](https://doi.org/10.3174/ajnr.A6706).
- Zhao H, Brigadoi S, Chitnis D, De Vita E, **M. Castellaro**, Powell S, Everdell NL, Cooper RJ. "A wide field-of-view, modular, high-density diffuse optical tomography system for minimally constrained three-dimensional functional neuroimaging." *Biomedical Optics Express* (2020) Aug 1;11(8):4110-29, DOI: [10.1364/BOE.394914](https://doi.org/10.1364/BOE.394914).
- Magliozzi R., Scalfari A., Pisani A. I., Ziccardi S., Marastoni D., Pizzini F.B., Bajrami A., Tamanti A., Guandalini M., Bonomi S., Rossi S., Mazziotti V. **M. Castellaro**, Montemezzi S. Rasia S., Capra R., Pitteri M., Romualdi C., Reynolds R., Calabrese M. "The CSF Profile Linked to Cortical Damage Predicts Multiple Sclerosis Activity." *Annals of Neurology* (2020) 83:739-755, DOI: [10.1002/ana.25786](https://doi.org/10.1002/ana.25786).
- R. Magliozzi, S. Hametner, F. Facchiano, D. Marastoni, S. Rossi, **M. Castellaro**, A. Poli, F. Lattanzi, A. Visconti, R. Nicholas, R. Reynolds, S. Monaco, H. Lassmann, M. Calabrese "Iron homeostasis, complement, and coagulation cascade as CSF signature of cortical lesions in early multiple sclerosis" *Annals of Clinical and Translational Neurology* (2019) 6:2150-2163, DOI: [10.1002/acn3.50893](https://doi.org/10.1002/acn3.50893).
- R. Magliozzi, D. Marastoni, S. Rossi, **M. Castellaro**, V. Mazziotti, M. Pitteri, A. Gajofatto, S. Monaco, M.D. Benedetti, M. Calabrese "Increase of CSF inflammatory profile in a case of highly active multiple sclerosis" *BMC Neurology* (2019) 19:231, DOI: [10.1186/s12883-019-1455-7](https://doi.org/10.1186/s12883-019-1455-7).
- V. Baro, A. Landi, S. Brigadoi, **M. Castellaro**, M. Moretto, M. Anglani, M. Ermani, F. Causin, E. Zanoletti, L. Denaro, A. Bertoldo, D. d'Avella "Preoperative Prediction of Facial Nerve in Patients with Vestibular Schwannomas: The Role of Diffusion Tensor Imaging? A Systematic Review" *World Neurosurgery* (2019) 125:24-31, DOI: [10.1016/j.wneu.2019.01.099](https://doi.org/10.1016/j.wneu.2019.01.099).
- M. Pitteri, C. Dapor, A.I. Pisani, **M. Castellaro**, J. DeLuca, N. Chiaravallotti, M. Guandalini, S. Ziccardi, M. Calabrese "Executive functioning affects verbal learning process in multiple sclerosis patients: Behavioural and imaging results" *Journal of Neuropsychology* (2019) In press, DOI: [10.1111/jnp.12198](https://doi.org/10.1111/jnp.12198).
- E. Silvestri, V. Scolozzi, G. Rizzo, L. Indovina, **M. Castellaro**, M.V. Mattoli, P. Graziano, G. Cardillo, A. Bertoldo and M.L. Calcagni "The kinetics of 18F-FDG in lung cancer: compartmental models and voxel analysis" *European Journal of Nuclear Medicine and Molecular Imaging Research* (2018) 8:88, DOI: [10.1186/s13550-018-0439-8](https://doi.org/10.1186/s13550-018-0439-8).
- A. Bajrami, M. Pitteri, **M. Castellaro**, F. Pizzini, C. Romualdi, S. Montemezzi, S. Monaco, M. Calabrese "The effect of fingolimod on focal and diffuse grey matter damage in active MS patients" *Journal of Neurology* (2018) 265:2154-2161, DOI: [10.1007/s00415-018-8952-2](https://doi.org/10.1007/s00415-018-8952-2).

R. Magliozzi, OW. Howell, R. Nicholas C. Cruciani, **M. Castellaro**, C. Romualdi, S. Rossi, M. Pitteri, MD. Benedetti, A. Gajofatto, F. Pizzini, S. Montemezzi, S. Rasia, R. Capra MD, A. Bertoldo, F. Facchiano, S. Monaco, R. Reynolds and M. Calabrese "Inflammatory intrathecal profiles and cortical damage in multiple sclerosis" *Annals of Neurology* (2018) 83:739-755, DOI: [10.1002/ana.25197](https://doi.org/10.1002/ana.25197).

M. Castellaro, G. Rizzo, M. Tonietto, M. Veronese, F.E. Turkheimer, M.A. Chappell, A. Bertoldo "A Variational Bayesian inference method for parametric imaging of PET data" *Neuroimage* (2017) 150:136-149, DOI: [10.1016/j.neuroimage.2017.02.009](https://doi.org/10.1016/j.neuroimage.2017.02.009).

M. Castellaro, R. Magliozzi, A. Palombit, M. Pitteri, E. Silvestri, V. Camera, S. Montemezzi, F.B. Pizzini, A. Bertoldo, R. Reynolds, S. Monaco and M. Calabrese "Heterogeneity of Cortical Lesion Susceptibility Mapping in Multiple Sclerosis" *American Journal of Neuroradiology*, (2017) 38:1087-1095, DOI: [10.3174/ajnr.A5150](https://doi.org/10.3174/ajnr.A5150).

D. Cecchin, A. Palombit, **M. Castellaro**, E. Silvestri, F. Bui, H. Barthel, O. Sabri, M. Corbetta, and A. Bertoldo. "Brain PET and functional MRI: why simultaneously using hybrid PET/MR systems?." *Q J Nucl Med Mol Imaging*. (2017) 61:345-359, DOI: [10.23736/S1824-4785.17.03008-4](https://doi.org/10.23736/S1824-4785.17.03008-4).

M. Calabrese, and **M. Castellaro**. "Cortical Gray Matter MR Imaging in Multiple Sclerosis." *Neuroimaging Clinics of North America* (2017) 27:301-312, DOI: [10.1016/j.nic.2016.12.009](https://doi.org/10.1016/j.nic.2016.12.009).

Zimatore D.S., Trentadue, **M. Castellaro**, M. Ferlisi, E. Piovan, M. Calabrese. "A case of epilepsy in multiple sclerosis: Three-dimensional double inversion recovery sequences revealed cortical dysplasia." *The Neuroradiology Journal* (2017) 30:352-355, DOI: [10.1177/1971400917697732](https://doi.org/10.1177/1971400917697732).

G. Rizzo, M. Tonietto, **M. Castellaro**, B. Raffener, A. Coran, U. Fiocco, R. Stramare and E. Grisan "Bayesian quantification of contrast-enhanced ultrasound images with adaptive inclusion of an irreversible component." *IEEE transactions on medical imaging*, (2017) 36:1027-1036, DOI: [10.1109/TMI.2016.2637698](https://doi.org/10.1109/TMI.2016.2637698).

D. Peruzzo, **M. Castellaro**, G. Pillonetto, and A. Bertoldo "Stable spline deconvolution for dynamic susceptibility contrast MRI". *Magnetic resonance in medicine* (2017) 78:1801-1811, DOI: [10.1002/mrm.26582](https://doi.org/10.1002/mrm.26582).

M. Calabrese, M. Pitteri, G. Farina, A. Bajrami, **M. Castellaro**, R. Magliozzi, S. Monaco. "Dimethyl fumarate: a possible exit strategy from natalizumab treatment in patients with multiple sclerosis at risk for severe adverse events". *J Neurol Neurosurg Psychiatry* (2017) 88:1073-1078, DOI: [10.1136/jnnp-2017-316236](https://doi.org/10.1136/jnnp-2017-316236).

S. Brigadoi, S. Cutini, F. Meconi, **M. Castellaro**, P. Sessa, M. Marangon, A. Bertoldo, P. Jolicœur, R. Dell'Acqua "On the Role of the Inferior Intraparietal Sulcus in Visual Working Memory for Lateralized Single-feature Objects" *Journal of Cognitive Neuroscience* (2017) 29:337-351, DOI: [10.1162/jocn_a_01042](https://doi.org/10.1162/jocn_a_01042).

M. Calabrese, **M. Castellaro**, A. Bertoldo, A. De Luca, F.B. Pizzini, G.K. Ricciardi, M. Pitteri, S. Zimatore, R. Magliozzi, M.D. Benedetti, P. Manganotti, S. Montemezzi, R. Reynolds, A. Gajofatto, S. Monaco "Epilepsy in multiple sclerosis: The role of temporal lobe damage" *Multiple Sclerosis Journal* (2017) 23:473-482, DOI: [10.1177/1352458516651502](https://doi.org/10.1177/1352458516651502).

M. Castellaro, D. Peuzzo, A. Mehndiratta, G. Pillonetto, E.T. Petersen, X. Golay, M. Chappell, A. Bertoldo "Estimation of arterial arrival time and cerebral blood flow from QUASAR arterial spin labeling using stable spline" *Magnetic Resonance Medicine*, (2015) 74:1758-1767, DOI: [10.1002/mrm.25525](https://doi.org/10.1002/mrm.25525).

M. Calabrese , R. Reynolds, R. Magliozzi, **M. Castellaro**, A. Morra, A. Scalfari, G. Farina, C. Romualdi, A. Gajofatto, Marco Pitteri, M. D. Benedetti, S. Monaco "Regional Distribution and Evolution of Gray Matter Damage in Different Populations of Multiple Sclerosis Patients", *PloS one* (2015) 10:p.e0135428, DOI: [10.1371/journal.pone.0135428](https://doi.org/10.1371/journal.pone.0135428).

D. Peruzzo, **M. Castellaro**, M. Calabrese, E. Veronese, F. Rinaldi, V. Bernardi, A. Favaretto, P. Gallo, A. Bertoldo "Heterogeneity of cortical lesions in multiple sclerosis: an MRI perfusion study.", *Journal of Cerebral Blood flow and metabolism*, (2013) 33:457-463, DOI: [10.1038/jcbfm.2012.192](https://doi.org/10.1038/jcbfm.2012.192).

Short Paper E. Silvestri, A. Antonini, **M. Castellaro**, R. Biundo, D. Cecchin, A. Bertoldo "Connectivity in Parkinson's disease patients with cognitive impairment: a simultaneous PET/MRI study." (2020) *Proc. of the Italian National Group of Bioengineering*. Epub ahead of print.

Rizzo, G., Tonietto, M., **Castellaro, M.**, Raffeiner, B., Coran, A., Fiocco, U., Stramare, R. and Grisan, E., "Improving the quantification of Contrast Enhanced Ultrasound using a Bayesian Approach." *Proc. SPIE 10139, Medical Imaging 2017: Ultrasonic Imaging and Tomography* (2017)(pp. 101390E).

Rizzo, G., Tonietto, M., **Castellaro, M.**, Raffeiner, B., Coran, A., Fiocco, U., Stramare, R. and Grisan, E. "Detection of a slow-flow component in contrast-enhanced ultrasound of the synovia for the differential diagnosis of arthritis. (2017) *Proc. SPIE 10139, Medical Imaging 2017: Ultrasonic Imaging and Tomography* (pp. 1013441).

Palombit, A., **Castellaro, M.**, Calabrese, M., Romualdi, C., Pizzini, F.B., Montemezzi, S., Grisan, E. and Bertoldo, A. (2017) "Cortical Thickness variability in Multiple Sclerosis: The role of lesion segmentation and filling". In *Biomedical Imaging (ISBI 2017)*, (2017) IEEE 14th International Symposium (pp. 792-795).

G. Tarroni, **M. Castellaro**, C. Boffano, M.G. Bruzzone, A. Bertoldo, E. Grisan (2015): "A Novel Approach to Motion Correction for ASL Images based on Brain Contours". *Progress in Biomedical Optics and Imaging - Proceedings of SPIE Medical Imaging*, Orlando, FL.

D. Boschetto, P. Di Prima, **M. Castellaro**, A. Bertoldo, E. Grisan "Baseline constrained reconstruction of DSC-MRI tracer kinetics from sparse fourier data." In *Biomedical Imaging (ISBI 2014)*, (2014) IEEE 11th International Symposium on 2014 Apr 29 (pp. 321-324).

D. Boschetto, **M. Castellaro**, P. Di Prima, A. Bertoldo, E. Grisan "Reconstruction of DSC-MRI data from sparse data exploiting temporal redundancy and contrast localization." *IFMBE Proceedings (2014) 41*, (pp.225-228)

M. Virgulin, **M. Castellaro**, F. Marcuzzi , E. Grisan (2014) "Analytic heuristics for a fast DSC-MRI", *Progress in Biomedical Optics and Imaging - Proceedings of SPIE Medical Imaging*, San Diego (CA, USA).

- Oral presentation D. Benozzo, D. Peruzzo, **M. Castellaro**, G. Pillonetto, A. Bertoldo "Optimized Non-Linear Stochastic Regularization for DSC-MRI Magnetic Resonance Materials in Physics, Biology and Medicine", Vol 25, Supplement 1, October 2012, pag. 590
- M. Castellaro**, I. Boscolo Galazzo, M. Battiston, S. Montemezzi, A. Beltramello, F.B. Pizzini ,A. Bertoldo "Separation of arterial and tissue components from uncrushed pCASL with Look-Locker readout", Magnetic Resonance Materials in Physics, Biology and Medicine, Vol 26, Supplement 1, October 2013, pag. 261
- M. Battiston, **M. Castellaro**, F. Arrigoni, F. Triulzi, A. Bertoldo (2013) "Correction for macrovascular artifacts in CBF estimation with Pseudo Continuous Arterial Spin Labeling and Look-Locker readout data", Magnetic Resonance Materials in Physics, Biology and Medicine, Vol 26, Supplement 1, October 2013, pag. 258
- M. Virgulín, **M. Castellaro**, F. Marcuzzi, E. Grisan (2014): "Analytic heuristics for a fast DSC-MRI". Proc. SPIE 9034, Medical Imaging 2014: Image Processing, 903424 (March 21, 2014), 2014.
- G. Rizzo, M. Tonietto, S. Zanoni, M. Chappell, **M. Castellaro**, A. Bertoldo (2015): "Use of a Variational Bayesian inference approach for the quantification of brain PET data at the voxel level." Molecular Imaging and Biology, 2015.
- R. Magliozzi, F. Facchiano, S. Rossi, **M. Castellaro**, A. Gajofatto, O. Howell, M.D. Benedetti, S. Monaco, R. Reynolds, M. Calabrese, (2015): "Predicting the disease progression: a combined CSF and MRI longitudinal study on grey matter damage in multiple sclerosis. MS Frontiers 2015, Annual Meeting of the UK MS Society, London, 2015.
- G. Rizzo, **M. Castellaro**, M. Tonietto, M. Veronese, F.E Turkheimer, M.A. Chappell, A. Bertoldo, (2016) "Parametric imaging of brain PET data using a Variational Bayesian inference approach", Eleventh International Symposium on Functional Neuroreceptor Mapping of the Living Brain, (NeuroReceptor Mapping 2016), Boston (MA, USA), 13-17 July 2016
- G. Rizzo, M. Tonietto, **M. Castellaro**, A. Coran, B. Raffener, U. Fiocco, R. Stramare, E. Grisan (2017) "Improving the quantification of contrast enhanced ultrasound using a Bayesian approach", SPIE Medical Imaging 2017, February 2017, Orlando (Florida, USA), SPIE Conference Proceedings 10139-13
- A. Tamanti, K. Bredies, M. Castellaro, A. Bertoldo, S. Ropele, B. Bilgic, C. Langkammer "Total Generalized Variation QSM algorithm with Structure Tensor stabilization" ISMRM 2018 Italian Chapter, Padova 2018.
- P. Clement, **M. Castellaro**, T. Okell, K. Gorgolewski, S. Appelhoff, J. Petr, M. Chappell, H.J. Mutsaerts "ASL-BIDS, the brain imaging data structure extension for arterial spin labeling"
- Poster presentation D. Peruzzo, **M. Castellaro**, M. Calabrese, E. Veronese, F. Rinaldi, V. Bernardi, A. Favaretto, I. Mattisi, P. Gallo, A. Bertoldo "Altered hemodynamics of cortical lesions in multiple sclerosis". Multiple Sclerosis. 26th Congress of the European Committee for Treatment and Research in Multiple Sclerosis, Gothenburg, Sweden, 13-16 October 2010, vol. 16, Supplement 10.

M. Castellaro, D. Peruzzo, M. Calabrese, F. Rinaldi, V. Bernardi, A. Favaretto, I. Mattisi, P. Gallo, A. Bertoldo. *"Altered Hemodynamics of Cortical Lesions in Multiple Sclerosis: a Dynamic Susceptibility Contrast MRI study using a Kernel-Based Deconvolution Algorithm."* ISMRM 19th meeting and exhibition, Montreal, Canada, 13-17 May 2011.

M. Castellaro, L. Squarcina, D. Peruzzo, A. Bertoldo, M. Calabrese, P. Gallo. *"Longitudinal analysis of the perfusion and diffusion parameters of cortical lesions and normal appearing cortical grey matter in multiple sclerosis."* 5th joint triennial congress of the European and Americas Committees for Treatment and Research in Multiple Sclerosis. 19-22 October 2011, Amsterdam, The Netherlands, Poster II, P842.

I. Boscolo Galazzo, **M. Castellaro**, D. Peruzzo, F. Arrigoni, F. Triulzi, A. Bertoldo *"Single post-labeling versus multi post-labeling pCASL: evaluation of differences in cerebral blood flow estimation"*, Magnetic Resonance Materials in Physics, Biology and Medicine, Vol 25, Supplement 1, October 2012, pag. 590

M. Castellaro, I. Boscolo Galazzo, D. Peruzzo, F. Arrigoni, F. Triulzi, A. Bertoldo *"Assessment of mono-exponential model with Pseudo Continuous ASL data"*, Magnetic Resonance Materials in Physics, Biology and Medicine, Vol 25, Supplement 1, October 2012, pag. 590

M. Castellaro, A. Mehndiratta, D. Peruzzo, G. Pillonetto E.T. Petersen, X. Golay, M.A. Chappell, A. Bertoldo *"Cerebral blood flow quantification from QUASAR ASL by Stable Spline"* 21th Annual Meeting of International Society of Magnetic Resonance in Medicine, Salt Lake City, Utah, May 2013

D. Boschetto, **M. Castellaro**, P. Di Prima, A. Bertoldo, E. Grisan *"Reconstruction of DSC-MRI data from sparse data exploiting temporal redundancy and contrast localization"*, XIII Mediterranean Conference on Medical and Biological Engineering and Computing held in Seville (Spain) September, 2013

I. Boscolo Galazzo, **M. Castellaro**, S. Montemezzi, A. Beltramello, F. B. Pizzini, A. Bertoldo *"Assessment of the labeling duration impact on perfusion estimates from a multiple time point pCASL acquisition."*, Magnetic Resonance Materials in Physics, Biology and Medicine, Vol 26, Supplement 1, October 2013, pag. 259

D. Boschetto, P. Di Prima, **M. Castellaro**, A. Bertoldo, E. Grisan *"Baseline-constrained reconstruction of DSC-MRI tracer kinetics sparse Fourier data"*, accepted at IEEE International Symposium on Biomedical Imaging, ISBI 2014, Beijing (Ch), April 2014

M. Calabrese, N.S. Orefice, **M. Castellaro**, A. Morra, F. Bortolon, S. Monaco, P. Manganotti (2014): *"Grey matter abnormalities in mesial temporal lobe characterize patients with multiple sclerosis and epilepsy"*. Multiple Sclerosis, 2014, (2014 Joint ACTRIMS-ECTRIMS Meeting, Boston).

M. Calabrese, R. Reynolds, R. Magliozzi, **M. Castellaro**, A. Scalfari; O.W. Howell, A. Morra, A. Gajofatto, C. Romualdi, M.D. Benedetti, S. Monaco (2014): *"Regional distribution and evolution of grey matter changes in different MS phenotypes: a 5-year longitudinal study"*. Multiple Sclerosis, 2014, (2014 Joint ACTRIMS-ECTRIMS Meeting, Boston).

- G. Tarroni, **M. Castellaro**, C. Boffano, M.G. Bruzzone, A. Bertoldo, E. Grisan (2014): *"3D Registration of Background-Suppressed ASL Data based on Brain Contours"*. Proc. Int. Soc. for Magn. Reson. in Med. 22th, Milan, Italy, 50 (6), 2014.
- M. Tonietto, M. Calabrese, I. Mazzonetto, **M. Castellaro**, S. Monaco, A. Bertoldo (2014): *"Effective connectivity of the Default Mode Network in MS patients: increased self-inhibition of the Posterior Cingulate Cortex."* Mult Scler, 20 (1 Suppl), Multiple Sclerosis Journal, 2014, ISSN: 1352-4585, (2014 Joint ACTRIMS-ECTRIMS Meeting, Boston).
- M. Castellaro**, D. Peruzzo, C. Boffano, M.G. Bruzzone, A. Bertoldo (2014): *"A bootstrap approach to detect corrupted volume in ASL data"*. 2014, (Proc. Int. Soc. for Magn. Reson. in Med. 22th, Milan, Italy).
- M. Castellaro**, E.T. Petersen, X. Golay, A. Bertoldo, M. Chappell, (2014): *"An improved arterial model for QUASAR ASL that permits estimation of arterial flow speed"*. 2014, (Proc. Int. Soc. for Magn. Reson. in Med. 22th, Milan, Italy).
- M. Battiston, **M. Castellaro**, C. Boffano, M.G. Bruzzone, A. Bertoldo (2014): *"ATLES: AuTomatic Labeling efficiency ESTimation"*. 2014, (Proc. Int. Soc. for Magn. Reson. in Med. 22th, Milan, Italy).
- M. Castellaro**, A. Bertoldo, D. Peruzzo, F. Arrigoni, M. Van Osch, (2015): *"Improving Look & Locker readout for pCASL using a variable Flip Angle sweep"* Proceedings of the 23rd Annual Meeting of the International Society for Magnetic Resonance in Medicine, Toronto, Canada, 2015.
- A. De Luca, **M. Castellaro**, S. Montemezzi, M. Calabrese, A. Bertoldo, (2015): *"Hippocampi and epilepsy in MS patients: a diffusion weighted imaging study with NODDI"*. Proceedings of the 23rd Annual Meeting of the International Society for Magnetic Resonance in Medicine, Toronto, Canada, 2015.
- R. Magliozzi, F. Facchiano, S. Rossi, **M. Castellaro**, A. Gajofatto, S. Montemezzi, F.B. Pizzini, A. Bertoldo, Pitteri, M; M.D. Benedetti, O. Howell, S. Monaco, R. Reynolds, M. Calabrese, (2015): *"Combined CSF and MRI longitudinal study of grey matter damage in multiple sclerosis may allow prediction and monitoring of disease progression"*. 31st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Barcellona, Spain, 2015.
- A. De Luca, **M. Castellaro**, S. Montemezzi, M. Calabrese, A. Bertoldo, (2015): *"Tissue separation of multi-shell DW-MRI with a physiologically constrained multi compartment model and spherical deconvolution"*. Proceedings of the 23rd Annual Meeting of the International Society for Magnetic Resonance in Medicine, Toronto, Canada, 2015.
- A. Palombit, **M. Castellaro**, M. Tonietto, E. Silvestri, M. Calabrese, A. Bertoldo (2015): *"Comparative Assessment of Methods for Quantitative Susceptibility Mapping on a Clinical Magnetic Resonance Data Set"*. 37th annual international conference of the IEEE Engineering in Medicine and Biology Society, EMBC, Milan, Italy, 2015.

B. Sabrina, S. Cutini F. Meconi, **M. Castellaro**, P. Sessa, M. Marangon, A. Bertoldo, D. Miotto, R. Dell'Acqua (2015): "*The neural substrate of lateralized visual short-term memory representations*". 21st annual meeting of Organization For Human Brain Mapping - OHBM 2015, 2015 - **Winner of Abstract merit award**.

M. Tonietto, I. Mazzonetto, S. Monaco, M. Calabrese, **M. Castellaro**, A. Bertoldo (2015): "*Effective and functional connectivity in the motor cortex are sensitive to disability in MS*". 21st annual meeting of Organization For Human Brain Mapping - OHBM 2015, 2015.

M. Tonietto, M. Calabrese, E. Silvestri, A. Morra, **M. Castellaro**, S. Monaco, A. Bertoldo (2015): "*Use of cortical thickness to detect localized damage in the somatomotor cortex in MS: relation with clinical disability*." 31st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS 2015, 2015.

M. Castellaro, A. Palombit, E. Silvestri, M. Tonietto, A. Gajofatto, S. Montemezzi, R. Magliozzi, Howell, O W; R. Reynolds, S. Monaco, A. Bertoldo, M. Calabrese, (2015): "*Heterogeneity of susceptibility mapping of cortical lesions in MS*." 31st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Barcellona, Spain, 2015.

M. Castellaro, A. Bertoldo, A. Morra, S. Monaco, M. Calabrese, Doyle, Orla (2015): "*Prediction of conversion to secondary progression phase in multiple sclerosis*." 31st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Barcellona, Spain, 2015.

M. Calabrese, **M. Castellaro**, A. De Luca, F.B. Pizzini, R. Magliozzi, S. Zimatore, G.K. Ricciardi, S. Montemezzi, M.D. Benedetti, M. Pitteri, G. Farina, A. Bertoldo, A. Gajofatto, R. Reynolds, O. Howell, P. Manganotti, S. Monaco, (2015): "*Temporal lobe damage is linked to epilepsy in multiple sclerosis patients*." 31st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Barcellona, Spain, 2015.

M. Castellaro, R. Magliozzi, A. Palombit, S. Montemezzi, A. Bertoldo, R. Reynolds, S. Monaco, M. Calabrese (2016): "*Heterogeneity of cortical lesions susceptibility map in Multiple Sclerosis and its neuropathological interpretation*" 32st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, London, United Kingdom, 2016.

G. Farina, M. Pitteri, R. Magliozzi, **M. Castellaro**, V. Camera, C. Romualdi, A. Bertoldo, S. Monaco, M. Calabrese (2016): "*Can Dimethyl-fumarate be a good treatment choice after Natalizumab discontinuation?*" 32st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, London, United Kingdom, 2016.

R. Magliozzi, C. Cruciani, **M. Castellaro**, C. Romualdi, S. Rossi, F. Facchiano, M. Pitteri, G. Farina, A. Bertoldo, S. Monaco, O. Howell, R. Reynolds, M. Calabrese "*Advanced characterization of intrathecal inflammation and cortical pathology stratify early MS patients*" 32st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, London, United Kingdom, 2016.

A. Palombit, **M. Castellaro**, E. Grisan, S. Montemezzi, F.B. Pizzini, M. Calabrese, A. Bertoldo *"Impact of lesion segmentation and filling on cortical thickness estimation"* 32st congress of the European committee for treatment and research in Multiple Sclerosis -ECTRIMS, London, United Kingdom, 2016.

E. Silvestri, M. Tonietto, **M. Castellaro**, M. Calabrese, A. Bertoldo *"Head motion during resting state fMRI acquisition significantly alter functional connectivity and it depends on patient disability"*32st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, London, United Kingdom, 2016.

G. Rizzo, M. Tonietto, **M. Castellaro**, A. Coran, B. Raffener, U. Fiocco, R. Stramare, E. Grisan (2017) *"Detection of a slow-flow component in contrast-enhanced ultrasound of the synovia for the differential diagnosis of arthritis"*, SPIE Medical Imaging 2017, February 2017, Orlando (Florida, USA), SPIE Conference Proceedings 10134-143

S. Ziccardi, M. Pitteri, Guandalini M., Zuco C., Bajrami A., D. Marastoni, F. Crescenzo, R. Magliozzi, S. Rossi **M. Castellaro** M. et al.(2017) *"Cognitive assessment should be considered in clinical trials in association with other clinical outcome measures"*, 33st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Paris, France

R. Magliozzi, S. Rossi, **M. Castellaro**, S. Hametner D. Marastoni, G. Farina, F. Facchiano, O. Howell, S. Monaco, R. Raynolds et al. (2017) *"Intrathecal B-cell inflammation influences CSF macrophage activity and the degree of cortical pathology in multiple sclerosis"*, 33st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Paris, France

D. Marastoni, R. Magliozzi, M. Pitteri, F. Crescenzo, C. Zuco, S. Rossi, **M. Castellaro**, G. Farina, S. Monaco and M. Calabrese (2017) *"Heterogeneity of peripheral blood NK cells behaviour in relapsing-remitting multiple sclerosis patients treated with dimethylfumarate"*, 33st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Paris, France

A. Bajrami, M. Pitteri, S. Ziccardi, D. Marastoni, F. Crescenzo, **M. Castellaro**, S. Rossi, R. Magliozzi, S. Monaco, and Calabrese, M. (2017) *"The effect of Gilenya on focal and diffuse grey matter damage in active MS patients"*, 33st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Paris, France

M. Castellaro, R. Magliozzi, S. Rossi, M. Pitteri, S. Montemezzi, F. Pizzini, S. Monaco, A. Bertoldo and M. Calabrese (2017) *"Iron loss of thalamic nuclei evaluated with quantitative susceptibility mapping is related to intrathecal macrophages activity and cortical pathology of multiple sclerosis"*, 33st congress of the European committee for treatment and research in Multiple Sclerosis - ECTRIMS, Paris, France

M. Castellaro, E. Silvestri, I. Boscolo Galazzo, M. Tonietto, A. Palombit, F. Pizzini, S. Montemezzi, E. Grisan, M. van Osch, A. Bertoldo (2017) *"Bayesian Model Selection of Time Encoded Arterial Spin Labelling: Effect of T1 and Dispersion"*, Proceedings of the 25th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, HI, USA

A. Ricciardi, **M. Castellaro**, A. Miglioranza, G. Germani, P. Vitali, G. Micieli, E. D'Angelo, F. Palesi, G. Castellazzi, C. Gandini Wheeler-Kingshott, E. De Vita and A. Bertoldo (2017) "*Reliability of Single- And Multi-TI ASL Measurements with a Clinical Product Sequence*", Proceedings of the 25th Annual Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, HI, USA

A. Palombit, **M. Castellaro**, E. Silvestri, E. De Vita, D. Cecchin and A. Bertoldo (2018) "*Functional connectivity sensitivity to image acceleration and orientation in simultaneous PET/MRI*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine and the European Society of Magnetic Resonance in medicine and biology, Paris, France

A. Palombit, E. Silvestri, **M. Castellaro**, E. De Vita, D. Cecchin and A. Bertoldo (2018) "*Multiband-enabled Resting State Functional Connectivity Mapping in Simultaneous PET/MRI*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine and the European Society of Magnetic Resonance in medicine and biology, Paris, France

A. Tamanti, K. Bredies, **M. Castellaro**, S. Ropele, B. Bilgic, C. Langkammer (2018) "*Structure tensor enhanced quantitative susceptibility mapping (ST-QSM)*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine and the European Society of Magnetic Resonance in medicine and biology, Paris, France

M. Castellaro, R. Magliozzi, A. Palombit, S. Montemezzi, F. Pizzini, A. Bertoldo, M. Calabrese (2018) "*Surface-based Quantitative Susceptibility Mapping of Cortical Pathology in Multiple Sclerosis*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine and the European Society of Magnetic Resonance in medicine and biology, Paris, France

A. Tamanti, A. I. Pisani, A. De Luca, F. B. Pizzini, **M. Castellaro**, C. Zuco, D. Marastoni, F. Crescenzo, A. Bertoldo, M. Pitteri, R. Magliozzi, and M. Calabrese (2019) "*Feasibility of NODDI for the characterization of multiple sclerosis clinical features*," Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Canada

M. Moretto, V. Baro, S. Brigadoi, **M. Castellaro**, M. Anglani, A. Mazzoni, E. Zanoletti, A. Landi, L. Denaro, F. Causin, D. D'Avella, A. Bertoldo, (2019) "*Optimized DTI acquisition and tractography pipeline for a reliable reconstruction of the facial nerve in patients with vestibular schwannoma*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Canada

M. Castellaro, G. Battista, A. Bertoldo (2019) "*Random forests and DenseNet: a comparative study of brain gliomas segmentation*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Canada

U. Villani, E. Silvestri, **M. Castellaro**, M. Corbetta, A. Bertoldo, (2019) "*Random forests and DenseNet: a comparative study of brain gliomas segmentation*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Canada

E. Silvestri, **M. Castellaro**, A. Palombit, S. Facchini, E. Monai, D. D'Avella, A. Della Puppa, D. Cecchin, M. Corbetta, Alessandra B., (2019) "*Simultaneous PET/MRI to detect brain tumour metabolic and functional heterogeneity*", Proceedings of the Joint Annual Meeting of the International Society for Magnetic Resonance in Medicine, Montreal, Canada

E. Silvestri, M. Moretto, **M. Castellaro**, S. Facchini, E. Monai, D. D'Avella, D. Cecchin, A. Della Puppa, M. Corbetta, A. Bertoldo (2019) "*A Whole Brain Approach to Study Altered Functional Connectivity in Gliomas*" 25st annual meeting of Organization For Human Brain Mapping - OHBM

E. Silvestri, A. Antonini, **M. Castellaro**, A. Palombit, R. Biundo, E. Fiorenzato, D. Cecchin, A. Bertoldo (2019) "*Multimodal PET/MRI Study of Connectivity in Cognitively Impaired Patients with Parkinsons Diseas*" 25st annual meeting of Organization For Human Brain Mapping - OHBM

M. Castellaro, I. Mazzonetto, F. Tiano, L. Weiss, D. Mantini, A. Bertoldo (2019) "*A frequency conductivity variant atlas for EEG inverse problem based on invivo MRI measures*" 25st annual meeting of Organization For Human Brain Mapping - OHBM

M. Moretto, E. Silvestri, **M. Castellaro**, Anglani M., Facchini S., Monai E., d'Avella D., Della Puppa A., Cecchin D., Corbetta M., Bertoldo A., (2020) "*An ICA-based approach to study altered resting state functional networks in brain tumors*", Proceedings of Virtual meeting of the International Society for Magnetic Resonance in Medicine

U. Villani, E. Silvestri, **M. Castellaro**, Schiavi S., Anglani M., Facchini S., Monai E., d'Avella D., Della Puppa A., Cecchin D., Corbetta M., Bertoldo A., (2020) "*Precision and goodness of fit of diffusion-based microstructure models in brain tumours: an integrated information theory approach*", Proceedings of Virtual meeting of the International Society for Magnetic Resonance in Medicine