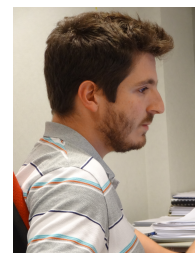


# Europass Curriculum Vitae



## Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

**Stamm, Aymeric**

162 Rue des Forges, Varades, 44370 Loireauxence, France

+33 (0)6 99 28 94 25

[aymeric.stamm@math.cnrs.fr](mailto:aymeric.stamm@math.cnrs.fr)

French

September 23rd, 1985

## Current position

Jan. 2019 -

**Research Engineer – Expert in statistical information.**

Laboratoire de Mathématiques Jean Leray, UMR CNRS 6629, Nantes (France).

Sept. 2015 -

**Research Associate.**

Dept. of Radiology, Boston Children's Hospital, Harvard Medical School (USA).

## Education and training

Jan. 2018 - Dec. 2018

**Post-Doctoral Project in Statistical Data Integration.**

Center for Analysis, Decisions and Society, Human Technopole, Istituto Italiano di Tecnologia, Milano (Italy).

Desc.: Application of statistical data integration approaches to the analysis of funds.

Supervisor: Prof. Piercesare Secchi

Sept. 2015 - Dec. 2017

**Post-Doctoral Project in Functional and Object-Oriented Data Analysis.**

Dept. of Mathematics, Politecnico di Milano, (Italy).

Desc.: Development of statistical methodologies in the context of functional and object-oriented data analysis with applications to neuroimaging.

Supervisor: Prof. Simone Vantini

Aug. 2013 - Aug. 2015

**Post-Doctoral Project in Mathematical Models for Medical Image Analysis.**

Dept. of Radiology, Boston Children's Hospital, Harvard Medical School, Boston (US).

Desc.: Development of an MR reconstruction pipeline from coil measurements to on-screen images for enhanced high-resolution, diffusion, parallel and phase imaging (with C++ library).

Supervisor: Prof. Simon K. Warfield

Nov. 2009 - Nov. 2013

**Ph.D. in Computer Science.**

IRISA, University of Rennes I, UMR CNRS 6074, Rennes (France).

Thesis: *Diffusion Directions Imaging – High resolution reconstruction of white matter fascicles from low angular resolution diffusion MRI.*

Curriculum: Statistical modeling of brain microstructure and connectivity.

Supervisors: Dr. Christian Barillot & Dr. Patrick Pérez

Sept. 2007 - Oct. 2009

**M. Sc. in Mathematical Engineering.**

Politecnico di Milano, Milan (Italy).

Double Degree via the Top Industrial Managers for Europe (TIME) program.

Final mark: 108/110.

*Major:* Statistics. *Minor:* Finance.

Thesis: *Small n large p inference on the mean.*

Supervisor: Prof. Piercesare Secchi (co-supervised by Dr. Simone Vantini)

Sept. 2005 - June 2007

**Diplôme d'Ingenieur.**

École Centrale Lyon, Lyon (France).

**Periods Abroad**

Sept. 2015 - Dec. 2018

Post-Doctoral Project in Functional and Object-Oriented Data Analysis and Statistical Data Integration, Politecnico di Milano, Milano (Italy).

Aug. 2013 - Aug. 2015

Post-Doctoral Project in Mathematical Models for Medical Image Analysis, Harvard Medical School, Boston (USA).

Sept. 2007 - Oct. 2009

Double Degree at Politecnico di Milano, Milano (Italy).

**Work Experiences**

Nov. 2012 - Mar. 2013

**Pontchaillou Teaching Hospital, Rennes (France)**

Sector: Dept. of Epidemiology and Public Health. Position: biostatistician

Main activities: design of experiments and data analysis for medical research projects.

**List of Selected Publications**

Journal Papers

2020

I. Lovato, A. Pini, **A. Stamm**, M. Taquet, S. Vantini

"Multiscale null hypothesis testing for network-valued data: analysis of brain networks of patients with autism", *Journal of the Royal Statistical Society - Series C*, Vol. **70**, pp. 372-97, <https://doi.org/10.1111/rssc.12463>.

2020

A. Bizzi, R. Pascuzzo, J. Blevins, M. Moscatelli, M. Grisoli, R. Lodi, F.M. Doniselli, G. Castelli, M. Cohen, **A. Stamm**, L. Schonberger, B.S. Appleby, P. Gambetti

"Subtype diagnosis of sporadic Creutzfeldt-Jakob disease with diffusion MRI", *Annals of Neurology*, Vol. **89**, pp. 560-72, <https://doi.org/10.1002/ana.25983>.

2019

I. Lovato, A. Pini, **A. Stamm**, S. Vantini

"Model-free two-sample test for network-valued data", *Computational Statistics and Data Analysis*, Vol. **144**, pp. 106896, 2019.

2018

A. Agosti, C. Giverso, E. Faggiano, **A. Stamm**, P. Ciarletta

"A personalized mathematical tool for neuro-oncology: a clinical case study", *Journal of Non-Linear Mechanics*, Special Issue on Multi-scale nonlinear continuum mechanical coupled field modelling and applications, Vol. **107**, pp. 170-81, 2018.

2018

A. Pini, **A. Stamm**, S. Vantini

"Hotelling's  $T^2$  in separable Hilbert spaces", *Journal of Multivariate Analysis*, Vol. **167**, pp. 284-305, 2018.

2018

C. Velasco-Annis, A. Akhondi-Asl, **A. Stamm**, S.K. Warfield

"Reproducibility of Brain MRI Segmentation Algorithms: Empirical Comparison of Local MAP PSTAPLE, FreeSurfer, and FSL-FIRST", *Journal of Neuroimaging*, Vol. **22**(2), pp. 162-72, 2018.

Acconsento il trattamento dei dati ai sensi del D. Lgs. 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali" e alla pubblicazione degli stessi secondo le norme vigenti in materia di trasparenza degli atti amministrativi / In accordance with Italian law 675/96 and D.Lgs 196/03, I hereby authorize you to treat/retain my personal information.

Last update: April 8, 2021

2017	F. Baumer, J.M. Peters, S. Clancy, A.K. Prohl, S.P. Prabhu, B. Scherrer, F.E. Jansen, K.P.J. Braun, M. Sahin, <b>A. Stamm</b> , S.K. Warfield "Corpus callosum white matter diffusivity reflects cumulative neurological comorbidity in Tuberous Sclerosis Complex", <i>Cerebral Cortex</i> , Vol. <b>28</b> (10), pp. 3665-72, 2017.
2016	M.A. Breen, A. Tsai, <b>A. Stamm</b> , P.K. Kleinman "Bone age assessment practices in infants and older children among Society for Pediatric Radiology members", <i>Pediatric Radiology</i> , Vol. <b>46</b> (9), pp. 1269-74, 2016.
2015	J.M. Peters, A.K. Prohl, X. Tomas-Fernandez, M. Taquet, B. Scherrer, S.P. Prabhu, H.G. Lidov, J.M. Singh, F.E. Jansen, K.P.J. Braun, M. Sahin, S.K. Warfield, <b>A. Stamm</b> "Tubers are neither static nor discrete: Evidence from serial diffusion tensor imaging", <i>Neurology</i> , Vol. <b>85</b> (18), pp. 1536-45, 2015.
2015	S. Pujol, W. Wells, C. Pierpaoli, C. Brun, J. Gee, G. Cheng, B. Vemuri, O. Commowick, S. Prima, <b>A. Stamm</b> , M. Goubran, A. Khan, T. Peters, P. Neher, K.H. Maier-Hein, Y. Shi, A. Tristan-Vega, G. Veni, R. Whitaker, M. Styner, C.F. Westin, S. Gouttard, I. Norton, L. Chauvin, H. Mamata, G. Gerig, A. Nabavi, A. Golby, R. Kikinis "The DTI Challenge: Toward Standardized Evaluation of Diffusion Tensor Imaging Tractography for Neurosurgery", <i>Journal of Neuroimaging</i> , Vol. <b>25</b> (6), pp. 875-82, 2015.
2013	P. Secchi, <b>A. Stamm</b> , S. Vantini "Inference for the mean of large p small n data: a finite-sample high-dimensional generalization of Hotelling's Theorem", <i>Electronic Journal of Statistics</i> , Vol. <b>7</b> , pp. 2005-31, 2013.
2013	A. Esquevin, H. Raoult, J.C. Ferré, T. Ronzière, <b>A. Stamm</b> , M. Perennes, A. Bellou, J.Y. Gauvrit "Systematic combined noncontrast CT-CT angiography in the management of unexplained nontraumatic coma", <i>The American Journal of Emergency Medicine</i> , Vol. <b>31</b> (3), pp. 494-8, 2013.
2013	H. Raoult, F. Eugène, J.C. Ferré, J.C. Gentric, T. Ronzière, <b>A. Stamm</b> , J.Y. Gauvrit "Prognostic factors for outcomes after mechanical thrombectomy with solitaire stent", <i>Journal of neuroradiology. Journal de neuroradiologie</i> , Vol. <b>40</b> (4), pp. 252-9, 2013. <u>Distinction</u> : as of January 2017, one of the 5 most cited papers published in Journal of Neuroradiology.
2012	H. Raoult, J.C. Ferré, J. Petr, E. Bannier, <b>A. Stamm</b> , C. Barillot, J.Y. Gauvrit "Functional arterial spin labeling: Optimal sequence duration for motor activation mapping in clinical practice", <i>Journal of magnetic resonance imaging : JMRI</i> , Vol. <b>36</b> (6), pp. 1435-44, 2012.
2011	H. Raoult, J. Petr, E. Bannier, <b>A. Stamm</b> , J.Y. Gauvrit, C. Barillot, J.C. Ferré "Arterial spin labeling for motor activation mapping at 3T with a 32-channel coil: reproducibility and spatial accuracy in comparison with BOLD fMRI", <i>NeuroImage</i> , Vol. <b>58</b> (1), pp. 157-67, 2011.
Conference proceedings	
2018	<b>A. Stamm</b> , O. Commowick, A. Menafoglio, S. K. Warfield "A Bayes Hilbert Space for Compartment Model Computing in Diffusion MRI", in <i>Proc. Medical Image Computing and Computer-Assisted Intervention – MICCAI 2018, Part ??</i> , <i>Lecture Notes in Computer Science</i> , Vol. <b>??</b> , pp. ??-??, 2018, Granada (Spain).
2018	<b>A. Stamm</b> , A. Zito, V. Callioni, I. Sartori, L. Torriani, S. Vantini "Tractography-Based Atlas of the Healthy Cortico-Spinal Tract", in <i>Proc. International Society for Magnetic Resonance in Medicine - ISMRM</i> , Vol. <b>??</b> , pp. ??, 2018, Paris (France).
2017	A. Pini, <b>A. Stamm</b> , S. Vantini

- “Hotelling in Wonderland”, in *International Workshop on Functional and Operatorial Statistics - IWFOs*, 2017, A Coruña (Spain).
- 2016 **A. Stamm**, O. Commowick, S.K. Warfield, S. Vantini  
“Comprehensive maximum likelihood estimation of diffusion compartment models towards reliable mapping of brain microstructure”, in *Proc. Medical Image Computing and Computer-Assisted Intervention – MICCAI 2016, Part III, Lecture Notes in Computer Science*, Vol. **9902**, pp. 622-30, 2016, Athens (Greece).
- 2016 O. Commowick, **A. Stamm**, S. Vantini, S.K. Warfield  
“Maximum likelihood estimators of brain white matter microstructure”, in *Proc. 48th Scientific Meeting of the Italian Statistical Society - SIS*, pp. 1–8, 2016, Salerno (Italy).
- 2015 **A. Stamm**, J.M. Singh, O. Afacan, S.K. Warfield  
“Analytic quantification of bias and variance of coil sensitivity profile estimators for improved image reconstruction in MRI”, in *Proc. Medical Image Computing and Computer-Assisted Intervention – MICCAI 2015, Part II, Lecture Notes in Computer Science*, Vol. **9350**, pp. 684–91, 2015, Munchen (Germany).
- 2015 R. Hédouin, O. Commowick, **A. Stamm**, C. Barillot  
“Interpolation and averaging of multi-compartment model images”, in *Proc. Medical Image Computing and Computer-Assisted Intervention – MICCAI 2015, Part I, Lecture Notes in Computer Science*, Vol. **9349**, pp. 354-62, 2015, Munchen (Germany).
- 2015 A. Pini, **A. Stamm**, S. Vantini  
“Inference in functional Hilbert spaces generalizing the Hotelling's  $T^2$ ”, in *Proc. International Society for Non-Parametric Statistics - ISNPS*, pp. 38, 2015, Graz (Austria).
- 2015 **A. Stamm**, O. Afacan, B. Scherrer, J.M. Singh, S.K. Warfield  
“In-vivo High Resolution Imaging of Fine-Scale Anatomical Structures at 3T with Simultaneous Bias/Variance Reduction”, in *Proc. International Society for Magnetic Resonance in Medicine - ISMRM*, Vol. **23**, pp. 2464, 2015, Toronto (Canada).
- 2015 **A. Stamm**, J.M. Singh, B. Scherrer, O. Afacan, S.K. Warfield  
“Multi-session complex averaging for high resolution high SNR 3T MR visualization of ex vivo hippocampus & insula”, in *Proc. SPIE 9413, Medical Imaging 2015: Image Processing*, Vol. **9413**(28), pp. 941328, 2015, Orlando (USA).
- 2015 B. Scherrer, O. Afacan, **A. Stamm**, J.M. Singh, S.K. Warfield  
“Optimized magnetic resonance diffusion protocol for ex-vivo whole human brain imaging with a clinical scanner”, in *Proc. SPIE 9412, Medical Imaging 2015: Physics of Medical Imaging*, Vol. **9412**(2U), pp. 94122U, 2015, Orlando (USA).
- 2014 **A. Stamm**, O. Commowick, P. Pérez, C. Barillot  
“Fast identification of optimal fascicle configurations from standard clinical diffusion MRI using Akaike information criterion”, in *Proc. 2014 11th IEEE International Symposium on Biomedical Imaging - ISBI*, pp. 238–41, 2014, Beijing (China).
- 2014 **A. Stamm**, B. Scherrer, O. Commowick, C. Barillot, S.K. Warfield  
“Fast and robust detection of the optimal number of fascicles in diffusion images using model averaging theory”, in *Proc. International Society for Magnetic Resonance in Medicine - ISMRM*, Vol. **22**, pp. 2629, 2014, Milan (Italy).
- 2014 **A. Stamm**, B. Scherrer, S. Baraldo, O. Commowick, S.K. Warfield  
“Non-central chi estimation of multi-compartment models improves model selection by reducing overfitting”, in *Proc. International Society for Magnetic Resonance in Medicine - ISMRM*, Vol. **22**, pp. 2623, 2014, Milan (Italy).
- 2013 **A. Stamm**, O. Commowick, C. Barillot, P. Pérez

“Adaptive multi-modal particle filtering for probabilistic white matter tractography”, in *Proc. Information Processing in Medical Imaging - IPMI*, Vol. **7917**, pp. 594-606, 2013, Asilomar (USA).

- 2012 O. Commowick, **A. Stamm**  
 “Non-local Robust Detection of DTI White Matter Differences with Small Databases”, in *Proc. Medical Image Computing and Computer-Assisted Intervention – MICCAI 2012, Part III, Lecture Notes in Computer Science*, Vol. **7512**, pp. 476-84, 2012, Nice (France).
- 2012 **A. Stamm**, P. Pérez, C. Barillot  
 “A new multi-fiber model for low angular resolution diffusion MRI”, in *Proc. 2012 9th IEEE International Symposium on Biomedical Imaging - ISBI*, pp. 936–39, 2012, Barcelona (Spain).
- 2012 **A. Stamm**, P. Pérez, C. Barillot  
 “A new multi-directional fiber model for low angular resolution diffusion imaging”, in *Proc. International Society for Magnetic Resonance in Medicine - ISMRM*, Vol. **20**, pp. 908, 2012, Melbourne (Australia).
- 2011 P. Secchi, **A. Stamm**, S. Vantini  
 “A generalization of Hotelling’s theorem for large p small n data”, in *Proc. Statistical Computation and Complex Systems - S.Co.*, pp. 1-6, 2011, Padua, (Italy).
- 2010 P. Secchi, **A. Stamm**, S. Vantini  
 “Large p Small n: Inference for the Mean”, in *Proc. 45th Scientific Meeting of the Italian Statistical Society - SIS*, pp. 1-8, 2010, Padua (Italy).

### Invited talks at conferences and workshops

\*indicates the speaker

- 2018 A. Pini, **A. Stamm\***, S. Vantini  
 “Inference in separable Hilbert spaces using Hotelling’s  $T^2$ ”, at the 23-*rd* International Conference on Computational Statistics (COMPSTAT 2018), Iasi (Romania).
- 2017 A. Pini, **A. Stamm\***, S. Vantini  
 “Assessment of Brain White Matter Integrity: Perspectives from Functional Data Analysis”, at the 48-*th* Scientific Meeting of the Italian Statistical Society (SIS 2017), Firenze (Italy).
- 2016 O. Commowick, **A. Stamm\***, S. Vantini, S.K. Warfield  
 “Numerical and computational challenges in ML estimation of mixture models for analyzing diffusion MRI data”, at the 9-*th* International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), Sevilla (Spain).
- 2015 **A. Stamm\***  
 “Understanding the neural basis of sudden unexpected death in epilepsy (SUDEP)”, at the Center for SUDEP research (CSR), March 26th, 2015, National Institute of Health (NIH), Bethesda, Washington (USA).

### Contributed talks at conferences and workshops

\*indicates the speaker

- 2016 O. Commowick, **A. Stamm\***, S. Vantini, S.K. Warfield



- “Maximum likelihood estimators of brain white matter microstructure”, in *Proc. 48th Scientific Meeting of the Italian Statistical Society - SIS*, pp. 1–8, 2016, Salerno (Italy).
- 2015 A. Pini\*, **A. Stamm**, S. Vantini  
 “Inference in functional Hilbert spaces generalizing the Hotelling’s  $T^2$ ”, in *Proc. International Society for Non-Parametric Statistics - ISNPS*, pp. 38, 2015, Graz (Austria).
- 2014 **A. Stamm\***, O. Commowick, P. Pérez, C. Barillot  
 “Fast identification of optimal fascicle configurations from standard clinical diffusion MRI using Akaike information criterion”, in *Proc. 2014 11th IEEE International Symposium on Biomedical Imaging - ISBI*, pp. 238–41, 2014, Beijing (China).
- 2012 O. Commowick\*, **A. Stamm**  
 “Non-local Robust Detection of DTI White Matter Differences with Small Databases”, in *Proc. Medical Image Computing and Computer-Assisted Intervention – MICCAI 2012, Part III, Lecture Notes in Computer Science*, Vol. **7512**, pp. 476-84, 2012, Nice (France).
- 2012 **A. Stamm**, P. Pérez, C. Barillot\*  
 “A new multi-fiber model for low angular resolution diffusion MRI”, in *Proc. 2012 9th IEEE International Symposium on Biomedical Imaging - ISBI*, pp. 936–39, 2012, Barcelona (Spain).
- 2012 **A. Stamm\***, P. Pérez, C. Barillot  
 “A new multi-directional fiber model for low angular resolution diffusion imaging”, in *Proc. International Society for Magnetic Resonance in Medicine - ISMRM*, Vol. **20**, pp. 908, 2012, Melbourne (Australia).
- 2011 P. Secchi, **A. Stamm**, S. Vantini\*  
 “A generalization of Hotelling’s theorem for large p small n data”, in *Proc. Statistical Computation and Complex Systems - S.Co.*, pp. 1-6, 2011, Padua, (Italy).
- 2010 P. Secchi, **A. Stamm**, S. Vantini\*  
 “Large p Small n: Inference for the Mean”, in *Proc. 45th Scientific Meeting of the Italian Statistical Society - SIS*, pp. 1-8, 2010, Padua (Italy).

## Financed Projects

- June 2019 - Dec. 2022 **MS-CSI: Common and Specific Information from Neuroimaging and Smartphone-Connected Motion Sensor Gait Data in Multiple Sclerosis**  
 Role in the project: Principal Investigator.  
 Project Partners: CNRS (French National Center for Scientific Research), University Hospital of Nantes, INRIA, University Hospital of Rennes, Nantes University.  
 Project Financers: ARSEP (Association for Research on Multiple Sclerosis)
- Sept. 2015 - Dec. 2018 **The H<sup>2</sup>C Project: Inference for Hidden High-dimensional Complex Data.**  
 Role in the project: Principal Investigator.  
 Project Partners: Politecnico di Milano.  
 Project Financers: PoliMi International Fellowships (PIF) - Politecnico di Milano
- Nov. 2011 - Dec. 2013 **Large P small n Project.**  
 Role in the project: Associate Investigator.  
 Project Partners: Politecnico di Milano, Université de Rennes I, Emory University.  
 Project Financers: 5x1000 Donations - Politecnico di Milano

## Teaching

Lecturer of the course "R for Data Science",  
M.Sc. in Statistical Engineering, Ecole Centrale de Nantes and Nantes University (France),  
AcYr : 2020/21

Lecturer of the course "Python for Statistics",  
M.Sc. in Statistical Engineering, Nantes University (France),  
AcYr : 2020/21

Teaching Assistant of the course "Inferential Statistics" (Prof. E. Brugallé),  
B.Sc. in Mathematics, Nantes University (France),  
AcYr : 2020/21

Teaching Assistant of the course "R for Data Science" (Prof. B. Michel),  
M.Sc. in Statistical Engineering, Ecole Centrale de Nantes (France),  
AcYr : 2019/20

Lecturer of the course "Python for Statistics",  
M.Sc. in Statistical Engineering, Nantes University (France),  
AcYr : 2019/20

Teaching Assistant of the course "Inferential Statistics" (Prof. E. Brugallé),  
B.Sc. in Mathematics, Nantes University (France),  
AcYr : 2019/20

Teaching Assistant of the course "Inferential Statistics" (Prof. E. Brugallé),  
B.Sc. in Mathematics, Nantes University (France),  
AcYr : 2018/19

Teaching Assistant of the course "Statistics" (Prof. S. Vantini),  
B.Sc. in Mathematical Engineering, Politecnico di Milano (Italy),  
AcYr : 2017/18

Tutorato di Calcolo delle Probabilità e Statistica (Prof. L. Ladelli),  
B.Sc. in Automation Engineering, Politecnico di Milano (Italy),  
AcYr : 2017/18

Corsi OFA - Mathematics (Prof. A. M. Paganoni),  
B.Sc. Preparation, Politecnico di Milano (Italy),  
AcYr : 2017/18

Tutorato di Statistica (Prof. F. Zucca),  
M.Sc. in Mechanical Engineering, Politecnico di Milano (Italy),  
AcYr : 2016/17

Teaching Assistant of the course "Applied Statistics" (Prof. A. Barchielli),  
M.Sc. in Electrical Engineering, Politecnico di Milano (Italy),  
AcYr : 2016/17

Corsi OFA - Mathematics (Prof. G. Magli),  
B.Sc. Preparation, Politecnico di Milano (Italy),  
AcYr : 2016/17

Tutorato di Statistica (Prof. F. Zucca),  
M.Sc. in Mechanical Engineering, Politecnico di Milano (Italy),  
AcYr : 2015/16

## Scientific and academic activities

Teaching Assistant of the course "Applied Statistics" (Prof. A. Barchielli),  
M.Sc. in Electrical Engineering, Politecnico di Milano (Italy),  
AcYr : 2015/16

Lecturer of the course "Descriptive Statistics",  
B.Sc. in Business and Administrative Management, Institut Universitaire Technologique de Saint-Malo (France),  
AcYr : 2011/12

Teaching assistant of the course "Study of Functions" (Prof. G. Moisan),  
B.Sc. in Business and Administrative Management, Institut Universitaire Technologique de Saint-Malo (France),  
AcYr : 2010/11

Teaching assistant of the course "Introduction to Probabilities and Statistics" (Prof. G. Moisan),  
B.Sc. in Business and Administrative Management, Institut Universitaire Technologique de Saint-Malo (France),  
AcYr : 2009/10

### Ph.D. Co-Supervision

- "Statistical tools for the analysis of movement data: application to gait analysis.", Pierre Drouin, Nantes University, France (2020+), ongoing.
- "Statistical tools for the analysis of network-valued data: theory, algorithms and applications.", Ilenia Lovato, Università degli Studi di Pavia, Italy (2018), <https://iris.unipv.it/retrieve/handle/11571/1228780/227794/PhDTesiLovato.pdf;jsessionid=339E097822F7AAE4B64AF94E1963FBE2.suir-unipv-prod-01>.
- "Non-parametric classification and regression techniques for the characterisation of the disease subtypes and the assessment of the temporal evolution of image-based biomarkers.", Riccardo Pascuzzo, Politecnico di Milano, Italy (2018), <https://www.politesi.polimi.it/handle/10589/138984>.



## Master's Thesis Co-Supervision

- “Segmentation of movement data for the detection of stride patterns.”, Benjamin Martineau, Nantes University, France (2020), ongoing.
- “Variational inference and variational auto-encoders for single-cell RNA-seq dimensionality reduction: application to multiple myeloma.”, Anthony Ozier-Lafontaine, Ecole Centrale de Nantes, France (2019).
- “Optimized K-mean alignment algorithm for clustering functional data : application to brain tractography.”, Alessandro Zito, Politecnico di Milano, Italy (2017), <https://www.politesi.polimi.it/handle/10589/137327>.
- “White matter tractography. Application of shape analysis and functional data analysis tools on fiber bundles analysis.”, Lorenzo Rota, Politecnico di Milano, Italy. Abroad at & INRIA Rennes in VisAgeS team (2017), <https://www.politesi.polimi.it/handle/10589/134486>.
- “Functional data analysis for brain tractography.”, Federica Gandolfi & Matteo Cimini, Politecnico di Milano, Italy (2017), <https://www.politesi.polimi.it/handle/10589/134415>.
- “CEREBRO: Creation of realistic brains for dMRI inspection.”, Manuela Martarelli, Politecnico di Milano, Italy (2016), <https://www.politesi.polimi.it/handle/10589/131891>.
- “MASTER: a Multivariate Axonal Simulator for Tractography Evaluation in R towards reliable reconstruction of brain white matter fascicles.”, Francesco Passarotto, Politecnico di Milano, Italy (2016), <https://www.politesi.polimi.it/handle/10589/120661>.

**Meet me Tonight - Notte dei Ricercatori**, Hard Math Café, Milano (Italy). Yrs: 2015, 2016.

**Reviewer for international journals and peer-reviewed conferences**, Frontiers in Neuroscience, IEEE Transactions on Medical Imaging (TMI), Statistics in Medicine (SiM), Journal of the Royal Statistical Society – Series A (JRSS-A). Journal of Computer Assisted Tomography (JCAT). Medical Image Computing and Computer-Assisted Intervention Conference (MICCAI) in 2014, 2015, 2016 and 2017.

Jan. 2017 -

**Member of the Maths Department Council as post-doctoral fellow representative**, Politecnico di Milano, Milan (Italy).

Mar. 2011 - June 2012

**Member of the IRISA Laboratory Council**, IRISA, Rennes (France).

Nov. 2009 - Feb. 2011

**Representative of IRISA/INRIA Ph.D. Students**, IRISA/INRIA, Rennes (France).

## Fellowships

2015

PoliMi International Fellowship: “The H<sup>2</sup>C Project: Inference for Hidden High-dimensional Complex Data” at Dept. of Mathematics, Politecnico di Milano.

## Awards / Honors

2014

“Elsevier Certificate for Highly Cited Research in Journal of Neuroradiology”, granted by the Journal of Neuroradiology in January 2017 for the paper “Prognostic factors for outcomes after mechanical thrombectomy with solitaire stent” which has become one of the five most cited papers of the journal.

2014

“SFRMBM Merit Award”, granted by the French Society for Magnetic Resonance in Biology and Medicine to particularly meriting works at the international meeting of the International Society for Magnetic Resonance in Medicine (ISMRM).

- 2013 “Rennes 1 Foundation 2013 Best Thesis Award for Innovative Research Work”, award granted by the Rennes 1 Foundation for innovative aspects of my Ph.D. work.
- 2012 “Magna Cum Laude Merit Award”, granted by the International Society for Magnetic Resonance in Medicine to outstanding works at the international meeting of the International Society for Magnetic Resonance in Medicine (ISMRM).

## Personal skills and competences

Mother tongue(s)

Other language(s)

*Self-assessment  
European level<sup>(\*)</sup>*

**English**

**Italian**

Certificates

Computer skills and competences

## French

English, Italian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user

<sup>(\*)</sup> Common European Framework of Reference (CEF) level

English: TOEFL CBT 627/670

**Statistical Analysis:** Expert knowledge of R, advanced knowledge of Python, basic knowledge of Minitab and SAS.

**Modeling:** Extended knowledge of Matlab, basic knowledge of Mathematica.

**Programming:** Extended knowledge of C++.