Marco MONTEMURRO

SCORES

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Born on May 23, 1984 in Matera (Italy)
Married
Nationality: Italian
Driving licences: B and A3

Addresses

Arts et Métiers ParisTech,
Institut de Mécaniques de Bordeaux – I2M,
Esplanade des Arts et Métiers,
F-33400 Talence – France

Tel : +33 (0) 5 56 84 54 22
E-mail : marco.montemurro@ensam.eu

Professional Experience

2016-present	**Head of CIRD (Conception, Industrialisation, Risque et Décision) Department - ENSAM Bordeaux**
2013-present	**Associate Professor (Maître de Conférences)** Arts et Métiers ParisTech – Campus de Bordeaux-Talence Laboratoire « Institut de Mécanique et d'Ingénierie – Bordeaux », I2M
2012 / 2013	**Full-time Assistant Professor** "Attaché Temporaire d'Enseignement et de Recherche (ATER)" Ecole des Mines de Nancy, Université de Lorraine, Laboratoire d'Energétique et de Mécanique Théorique et Appliquée, GIP-InSIC
2009 / 2012	**R&D Engineer and PhD Student** Centre de Recherche Public Henri Tudor, Luxembourg
2006 / 2007	**Research Fellow** University of Pisa (Italy), Dept. of Civil and Mechanical Engineering. Task: Analysis of failure and non-linear phenomena of advanced materials for civil engineering

Education and Training

2013	**French national Scientific Qualification for the university professor position recruiting**
2009 / 2012	**PhD Thesis** at Université Pierre et Marie Curie Paris VI (Paris, France) and at Centre de Recherche Public Henri Tudor (Luxembourg)

Funding: Fonds National de la Recherche du Luxembourg through Aides à la Formation Recherche Grant (PHD-09-139)
Title: *Optimal Design of Advanced Engineering Modular Systems through a New Genetic Approach*

2009 / 2010 **National Certification to obtain the Professional Engineering License**, Order of Engineers, Pisa, Italy

2006 / 2009 **MSc Engineering** (Laurea Specialistica, **Bac+5**) in Aeronautical Engineering, belonging to the class of MSc in Industrial Engineering
University: Università di Pisa (Italy)
Thesis title: *Active control of the helicopter rotor vibrations through flaps on the blades*

2003 / 2006 **Bachelor of Engineering** (Laurea Triennale, **Bac+3**) in Aeronautical Engineering, belonging to the class of BSc in Industrial Engineering
University: Università di Pisa (Italy)
Thesis title: *Optimisation of the transverse section of a beam made of a shape memory alloy*

Awards

2017 / 2021 **Prime d'encadrement doctoral et de recherche (PEDR)**, French national award for scientific excellence.

Publications, conferences and seminars

Type	Quantity
Papers published in international peer reviewed journals	18
International referenced conference proceedings	7
National referenced conference proceedings	6
International unreferenced conference proceedings	6
Chapter in a book	1
Total	**38**

2017

Publications

G. Costa, **M. Montemurro**, J. Pailhès. A 2D topology optimisation algorithm in NURBS framework with geometric constraints. *International Journal of Mechanics and Materials in Design*, https://doi.org/10.1007/s10999-017-9396-z, 2017 (in press)

G. Costa, **M. Montemurro**, J. Pailhès. A General Hybrid Optimization Strategy for Curve Fitting in the Non-uniform Rational Basis Spline Framework. *Journal of*

Optimization Theory and Applications, https://doi.org/10.1007/s10957-017-1192-2, 2017 (in press)

M. Montemurro, A. Catapano. On the effective integration of manufacturability constraints within the multi-scale methodology for designing variable angle-tow laminates. *Composite Structures*, v. 161, pp. 145-159, 2017.

A. Catapano, **M. Montemurro**. On the correlation between stiffness and strength properties of anisotropic laminates. *Mechanics of Advanced Materials and Structures* (accepted) 2017.

Conferences

M. Montemurro, A. Pagani, G.A. Fiordilino, J. Pailhes, E. Carrera. Simultaneous size/ material optimisation and accurate analysis of composite stiffened panels. *20th International Conference on Composite Structures*, Paris, France, 4-7 September, 2017.

A. Catapano, **M. Montemurro**. On the formulation of a tensorial laminate-level failure criterion through invariants. *20th International Conference on Composite Structures*, Paris, France, 4-7 September, 2017.

L. Cappelli, **M. Montemurro**, F. Dau, L. Guillaumat. Multi-scale identification of elastic properties for anisotropic media through a global hybrid evolutionary-based inverse approach. *20th International Conference on Composite Structures*, Paris, France, 4-7 September, 2017.

G. De Pasquale, **M. Montemurro**, A. Catapano, G. Bertolino, L. Revelli. Cellular structures from additive processes: design, homogenization and experimental validation. *AIAS 2017 International Conference on Stress Analysis*, Pisa, Italy, 6-9 September; 2017.

L. Cappelli, **M. Montemurro**, F. Dau, L. Guillaumat. A Multi-scale approach to characterise composite material properties by using eigen-frequencies experimental results. *23ème Congrès Français de Mécanique*, Lille, France, 28 August-1 September, 2017.

G. Costa, **M. Montemurro**, J. Pailhes. On the integration of additive manufacturing constraints in the framework of a NURBS-based topology optimization method. *23ème Congrès Français de Mécanique*, Lille, France, 28 August-1 September, 2017.

L. Cappelli, **M. Montemurro**, F. Dau, L. Guillaumat. Caractérisation multi-échelle des propriétés matériaux de tissus composites par mesures vibratoires. *20émes Journées Nationales sur les Composites 2017*, Champs-sur-Marne, France, 28-30 June, 2017.

M. Montemurro, A. Catapano. Une nouvelle méthodologie de conception multi-échelle pour l'optimisation des composites à rigidité variable. *20émes Journées Nationales sur les Composites 2017*, Champs-sur-Marne, France, 28-30 June, 2017.

G. Costa, **M. Montemurro**, J. Pailhes. A NURBS-based topology optimization method including additive manufacturing constraints. *7th International Conference on Mechanics and Materials in Design*, Albufeira, Portugal, 11-15 June, 2017.

M. Montemurro. A new multi-scale optimisation strategy for designing variable angle tow composites by integrating manufacturing constraints. *Workshop on Advances in the Analysis and Design of Composite Structures*, Castello del Valentino, Torino, 2 May, 2017.

S. Maietta, M. Martorelli, **M. Montemurro**, A. Gloria, A. Lanzotti. DFAM: towards the design of 3D advanced scaffolds for tissue engineering. *ADM Workshop*,

Politecnico di Milano, Italy, 14-15 February, 2017.

2016

Publications

M. Montemurro, A. Catapano. Ch: A new paradigm for the optimum design of variable angle tow laminates. In: *Variational analysis and aerospace engineering: mathematical challenges for the aerospace of the future*. 1st Edition, Vol. 116 of "Springer Optimization and Its Applications", Springer International Publishing, 2016. DOI: http://dx.doi.org/10.1007/978-3-319-45680-5.

E. Panettieri, D. Fanteria, **M. Montemurro**, C. Froustey. Low-velocity impact tests on carbon/epoxy composite laminates: A benchmark study. *Composites Part B: Engineering*, v.107, pp 9-21, 2016.

M. Montemurro, A. Catapano, D. Doroszewski. A multi-scale approach for the simultaneous shape and material optimisation of sandwich panels with cellular core. *Composites Part B: Engineering*, v.91, pp 458-472, 2016.

Conferences

A. Catapano, **M. Montemurro**. A general multi-scale design strategy for the optimisation of variable stiffness composites. *Journees annuelles SF2M 2016 - materiaux pour le domaine aerospatial: de l'innovation dans l'air*. Albi, France, October 2016.

2015

Publications

M. Montemurro, A. Vincenti, Y. Koutsawa, P. Vannucci. A two-level procedure for the global optimisation of the damping behaviour of composite laminated plates with elastomer patches. *Journal of Vibration and Control*, v.21 (9), pp. 1778-1800, 2015.

M. Montemurro. The polar analysis of the Third-order Shear Deformation Theory of laminates. *Composite Structures*, v. 131, pp. 775-789, 2015.

M. Montemurro. Corrigendum to" An extension of the polar method to the First-order Shear Deformation Theory of laminates"[Compos. Struct. 127 (2015) 328-339]. *Composite Structures*, v. 131, pp. 1143-1144, 2015.

M. Montemurro. An extension of the Polar Method to the First-order Shear Deformation Theory of laminates. *Composite Structures*, v. 127, pp. 328-339, 2015.

Conferences

M. Montemurro. A new design paradigm for the analysis and optimisation of composite structures. *64th Workshop: Variational analysis and aerospace engineering III: Mathematical challenges for a new aviation*, Erice, Italy; 28 August-5 September, 2015.

M. Montemurro, A. Catapano, D. Doroszewski. Simultaneous shape and material optimization of sandwich panels with honeycomb core for additive manufacturing. *18th International Conference on Composite Structures*, Lisbon, 2015

2014

Publications

A. Catapano, **M. Montemurro**. A multi-scale approach for the optimum design of sandwich plates with honeycomb core. Part I: homogenisation of core properties. *Composite Structures*, v. 118, pp. 664-676, 2014.

A. Catapano, **M. Montemurro**. A multi-scale approach for the optimum design of sandwich plates with honeycomb core. Part II: the optimisation strategy. *Composite Structures*, v. 118, pp. 677-690, 2014.

Conferences

A. Catapano, **M. Montemurro**. Optimal design of sandwich plates with honeycomb core. *Proceedings of Joint Conference on Mechanical, Design Engineering & Advanced Manufacturing*, Toulouse, France, 18–20 June, 2014.

P. Baracchini, C. Guillebaud, F.X. Kromm, A. Catapano, **M. Montemurro**, H. Wargnier. Architecture and materials selection in multi-materials design. *Proceedings of 16th European Conference on Composite Materials*, Seville, Spain, 22-26 June 2014.

2013

Publications

M. Montemurro, A. Vincenti, P. Vannucci. The Automatic Dynamic Penalisation method (ADP) for handling constraints with genetic algorithms. *Computer Methods in Applied Mechanics and Engineering*, v. 256, pp. 70-87, 2013.

2012

Publications

M. Montemurro, Y. Koutsawa, S. Belouettar, A. Vincenti, P. Vannucci. Design of damping properties of hybrid laminates through a global optimization strategy. *Composite Structures*, v. 94, pp. 3309-3320, 2012.

M. Montemurro, H. Nasser, Y. Koutsawa, S. Belouettar, A. Vincenti, P. Vannucci. Identification of electromechanical properties of piezoelectric structures through evolutionary optimisation techniques. *International Journal of Solids and Structures*, v. 49, pp. 1884-1892, 2012.

M. Montemurro, A. Vincenti, P. Vannucci. A two-level procedure for the global optimum design of composite modular structures - Application to the design of an aircraft wing. Part 1: theoretical formulation. *Journal of Optimization Theory and Applications*, v. 155 (1), pp. 1-23, 2012.

M. Montemurro, A. Vincenti, P. Vannucci. A two-level procedure for the global optimum design of composite modular structures - Application to the design of an aircraft wing. Part 2: numerical aspects and examples. *Journal of Optimization Theory and Applications*, v. 155 (1), pp. 24-53, 2012.

M. Montemurro, A. Vincenti, P. Vannucci. Design of elastic properties of laminates with minimum number of plies. *Mechanics of Composite Materials*, v. 48, pp. 369-390, 2012.

Conferences

M. Montemurro, Y. Koutsawa, S. Belouettar, A. Vincenti, P. Vannucci. Design of damping properties of hybrid elastomer-composite plates. *Proceedings of the 15th European Conference on Composite Materials*, Venice, Italy, 24-28 June 2012.

2011

Conferences

M. Montemurro, A. Vincenti, P. Vannucci, A. Makradi. Constrained weight optimization of composite laminated structures. *16th International Conference on Composite Structures*, Porto, Portugal, 28-30 June 2011.

M. Montemurro, A. Vincenti, P. Vannucci, A. Makradi. Optimisation en poids de structures composites stratifiées. *17ème Journées Nationales sur les Composites*, Poitiers, France, 15-17 Juin 2011.

Main research fields

- Development of numerical algorithms for optimisation (gradient-based and metaheuristics)
- Development of numerical algorithms for shape and topology optimisation

- Development of numerical strategies for the optimal design of advanced engineering modular structures (for civil, mechanical and aeronautical engineering)
- Development of theoretical models for multi-scale analysis of anisotropic media
- Design and modelling of anisotropic structures
- Design and modelling of hybrid structures (made of elastomer/composite materials and/or piezoelectric/composite materials)
- Multi-field analyses (e.g. electro-mechanical, thermo-mechanical, thermo-electro-mechanical and so on)
- Multi-scale numerical design/optimisation strategies (nano-micro-macro scales)
- Homogenisation of heterogeneous materials and structures (periodic and non-periodic), e.g. lattice structures, cellular structures, composite materials etc.
- Analysis of linear and non-linear instability phenomena of structures (e.g. buckling, wrinkling, dynamic instabilities such as flutter, aeroelastic divergence and so on)
- Meta-modelling techniques and surrogate models
- Development of tools for automatic generation of NURBS curves, surfaces and hypersurfaces for reverse engineering and meta-modelling techniques.

Research projects

Keywords: topology optimisation, surrogate models, NURBS hypersurfaces, additive manufacturing, lattice structures, numerical homogenization, durability.

- OCEAN-ALM: *Optimisation et Conception pour une mEthodologie AvaNcée pour l'ALM* (A new multiscale topology optimisation strategy for additive layer manufacturing). Budget: 1228 k€. **Head and coordinator of the project.**

- COFFA: *Conception et Optimisation de Forme pour la Fabrication Additive* (Design/optimisation methodologies for additive layer manufacturing). Budget: 498 k€. Co-supervisor of 1 PhD + 1 post-doc.

- FUTURPROD: *Optimisation multi-échelle du procédé de fabrication additive de type SLM pour applications aéronautiques* (Multiscale optimisation of SLM process for aeronautical applications). Budget: 1100 k€. Co-supervisor of 1 PhD.

Keywords: composite materials and structures, variable angle tow composites, automated fibre placement (AFP) technology, polar parameters, topology optimisation of anisotropy field, multi-scale optimisation, two-step Darwinian genetic algorithms, NURBS hypersurfaces, numerical homogenization, buckling and post-buckling, stiffened panels.

- SMARTCOMPOSITE: *Etude, conception et optimisation multi-échelle de structures composites à rigidité variable* (Multi-scale analysis, design and optimisation of variable stiffness composites). Budget: 228 k€. **Coordinator of the project with Anita CATAPANO.**

- PARSIFAL: Prandtlplane ARchitecture for the Sustainable Improvement of Future AirpLanes. Budget: 2956 k€. **Responsible of the project for the ENSAM**.

- ADAMUS: Analysis and optimum Design of Additive Manufactured composite strUctures for Space applications. Budget: 200k€. **Responsible of the project for the ENSAM.**

- FULLCOMP: Fully Integrated Analysis, Design, Manufacturing and Health-Monitoring of Composite Structures. Budget: 3095 k€. Co-supervisor of one PhD.

- LIAMA: *LIège Aéronautique Matériau* (Cork-based agglomerates for aeronautical applications). Budget: 895k€. Co-supervisor of one PhD.

Peer review activity

Journals: 1) Composite Structures; 2) Computer Methods in Applied Mechanics and Engineering; 3) Journal of Vibration and Control; 4) Journal of Reinforced Plastics and Composites; 5) Mechanics of Materials; 6) IEEE Transactions on System Man and Cybernetics; 7) Journal of the Mechanics and Physics of Solids; 8) Aerotecnica Missili & Spazio: journal of aerospace sciences technologies and systems, 9) Chinese Journal of Aeronautics, 10) Advances in Aircraft and Spacecraft Science, 11) Mechanics of Advanced Materials and Structures, 12) Journal of Industrial Textiles, 13) Journal of Engineering Mechanics (ASCEE).

Teaching Activities

About 375h per year at both Bachelors and Master Degree levels in the following fields:

Year	Course	Level
2013-Present	Theory, analysis and design of bearings	Bac+3
	Theory, analysis and design of gears	Bac+3
	CAD for engineering	Bac+3
	Modelling and Design of Wind Turbines	Bac+3
	Shape and topology optimisation methods for engineering	Bac+4
	Hydraulics	Bac+4
	Optimisation and evolutionary algorithms	Bac+5
	Composite Materials and Structures	Bac+5
	Additive Manufacturing processes	Bac+5
2012-2013	Fluid Mechanics	Bac+3
	The Finite Element method	Bac+3
	Composites Materials and Structures	Bac+4
	CAD modelling and topology optimisation	Bac+4

Students supervision

Post-doc

- Mr. Enrico PANETTIERI (2018-2020). *Development of a global-local FE-based approach for the optimum design of the Prandtl-Plane wing-box architecture.*

Ph.D. Students

- Mr. Michele Iacopo IZZI (2017-2020). *Multi-scale optimisation of composite stiffened panels by means of a local/global approach*.
- Mr. Marco DELUCIA (2017-2020). *Multi-scale design and optimisation of cork-based composites for Auxiliary Power Unit support structure.*
- Mr. Giacinto Alberto FIORDILINO (2017-2020). *Multi-scale analysis, design and optimisation of variable stiffness composites*.
- Mr. Corentin MALCHAIR (2017-2020). *Digital Interactive Framework for Aircraft Architecture Innovation.*
- Mr. Lorenzo CAPPELLI (2016-2019). *Durability of thermoplastic composites and variability effects*.
- Mr. Khalil REFAI (2016-2019). *Influence of the microstructure topology on the fatigue life of periodic cellular structures fabricated through additive manufacturing process.*
- Mr. Giulio COSTA (2015-2018). *Multi-scale design and optimisation of structural elements fabricated by means of additive manufacturing techniques*.
- Mr. Yohann AUDOUX (2015-2018). *Development of a new hierarchical design strategy using virtual reality concepts*.

Master Students

- Ms. Francesca DONATI (2017) *A hybrid global optimisation strategy for designing variable stiffness composites*, Politecnico di Torino, Italy.
- Ms. Antonella DI GIANNI (2017) *Design and optimisation of structural elements of the Prandtl-Plane Composite wing*, Università di Napoli Federico II.
- Mr. Luigi MAROTTA (2017) *Formulation of Mechanical Failure Criteria in Topology Optimisation*, Università di Napoli Federico II.
- Mr. Moncef M'HASNI (2017) *Amélioration et automatisation du cycle de conception des pièces de nacelles en matériaux composites* (Internship in collaboration with SAFRAN Composites, France)
- Mr. Mouncif EL MOUDNI (2017) Définition d'une logique de transport et de manutention (Internship in collaboration with Airbus SAFRAN Launchers)
- Mr Luis Fernando GONCALINHO ANTONINO (2017) *Wireline centralization design* (Internship in collaboration with Schlumberger)
- Mr. Luca REVELLI (2017) *Modelling, design and optimisation of dental implants fabricated by additive layer manufacturing (ALM) process*, Politecnico di Torino, Italy
- Mr. Jean Carlos PORTO HERNANDEZ (2016). *Stage conception mécanique*, ENSAM, Bordeaux (Internship in collaboration with Airbus Helicopter, France)
- Mr. Maxence MONTORO (2016). *Installation de toilettes à vide sur avion H/F*, ENSAM, Bordeaux (Internship in collaboration with Dassault Aviation, France)
- Mr. Alexis LORGNIE (2016). *Maquette numérique*, ENSAM, Bordeaux (Internship in collaboration with Dassault Aviation, SNECMA)

- Ms. Giulia BERTOLINO (2016) *Multi-scale analysis, characterisation, design and optimisation of biomimetic structures obtained by ALM*, Politecnico di Torino, Italy.
- Mr. Michele Iacopo IZZI (2016). *Multi-scale analysis, design and optimisation of composite stiffened panels*, Università di Pisa, Italy.
- Ms. Beatrice ZOLESI (2016). *Analytical, numerical and experimental multi-scale analysis of honeycombs fabricated through a 3D printer*, Università di Pisa, Italy.
- Mr. Pietro DEL SORBO (2015). *Analysis, Design and Modelling of Variable Stiffness Lightweight Structures*, Politecnico di Torino, Italy.
- Mr. Victor HINTZY (2015). *Design and topology optimization of products obtained by means of an additive manufacturing technique*, ENSAM, Bordeaux (Internship in collaboration with Poly-Shape, France).
- Mr. Alexandre AVERLANT (2015). *Ameliorating and predicting the dynamic behaviour of an unbalanced turbine rotor*, ENSAM, Bordeaux (Internship in collaboration with SNECMA, France).
- Mr. Jonathan JULIEN (2015). *Satellite thermal blanket venting*, ENSAM, Bordeaux (Internship in collaboration with Airbus Defence and Space, France).
- Mr. Maxime THOMAZO (2015). *Design and optimisation of the collar of the FAN assembled on the LEAP*, ENSAM, Bordeaux (Internship in collaboration with SNECMA, France).
- Mr. Marcos Ivan DIAZ DIAZ (2014). *Multi-scale analysis, design and optimisation of hybrid anisotropic strucures*, Centro De Investigación Y De Estudios Avanzados Del Instituto Politécnico Nacional, Unidad Zacatenco, Mexico.
- Mr. Hugo ROUSSEAUX (2013). *Design of the kinematic chain of a new helicopter rotor*, Ecole des Mines de Nancy (Internship in collaboration with Eurocopter, France).
- Mr. Nicolas OSSWALD (2013). *Design of manufacturing tools*, Ecole des Mines de Nancy (Internship in collaboration with SIEMENS, France).
- Mr. Julien PALLU (2013). *Robust design, prototype and validation*, Ecole des Mines de Nancy (Internship in collaboration with INTEVA, France).

Projects for Master Students

- Mr. Florian TALPIN & Mr. Victor PAUL (2016) *Caractérisation, analyse et conception de structures cellulaires à rigidité variables obtenues par fabrication additive*, ENSAM Bordeaux.
- Ms. Marie LENOIR & Ms. Eva MORAL (2016) *Avion à propulsion Humaine*: *optimisation*, ENSAM Bordeaux.
- Mr. Mouncif EL MOUDNI & Mr. Moncef M'HASNI (2016) *Conception et optimisation de la structure d'une aile d'avion obtenue par fabrication additive*, ENSAM Bordeaux.
- Mr Adria SALA ROMERA & Mr. Luis GONCALINHO ANTONIO (2016) *Effet des paramètres de modèles de zone cohesive sur le délaminage de structures composites*, ENSAM Bordeaux.
- Ms. Adriane MARANDON & Mr. Simon CHARRIER (2016) *Caractérisation*

multi-échelle de plaques composites par resolution d'un problem inverse à l'aide d'un algorithme génétique, ENSAM Bordeaux.

- Mr. John PIGEONNEAU & Mr. Thomas POUGHEON & Mr. Hugo LECOMMANDOUX (2016) *Caractérisation d'un reservoir cryogénique pour lanceur de nano-satellite*, ENSAM Bordeaux.
- Mr. Pierre-François STOSSKOPF & Mr. Henri TESTU (2015). *Human-powered French aircraft for international competition*, ENSAM Bordeaux.
- Mr. Vincent BIANCO & Mr. Alexandre LE POITIER (2015). *Design and fabrication of composite cryogenic tanks for nano-launcher: feedback and proposal for improvement in design / PERSEUS Project*, ENSAM Bordeaux.
- Mr. Marc MONGIS & Mr. Ludovic PERE (2015). *How to reduce/avoid CAD reconstruction after topology optimisation*, ENSAM Bordeaux.
- Ms. Zoubida HADRI & Mr. Mihai CHIOTEA (2015). *Multi-scale analysis of the post-buckling behaviour of variable angle tow (VAT) plates*, ENSAM Bordeaux.
- Mr. Jean PORTO & Mr. Mathieu FRANCOIS (2015). *Determination of thermo-mechanical properties of composite materials through a numerical homogenisation technique*, ENSAM Bordeaux.
- Mr. Fabien DE PROOST & Mr. Antoine FOUREL (2014). *On the influence of the anisotropy on the post-buckling behaviour of stiffened panels*, ENSAM Bordeaux.
- Mr. Alexandre AVERLANT & Mr. Maxime THOMAZO (2014). *Topology optimisation for additive manufacturing*, ENSAM Bordeaux.

Scientific committees and professional services

International journals editorial board membership
Member of the editorial board of *Mechanics of Advanced Materials and Structures* Journal (Taylor and Francis)
Scientific committee membership
Member of the scientific committee of the International Conference on Mechanics of Advanced Materials and Structures (17-20 June 2018, Torino, Italy)

Member of selection committees recruiting associate/full professors in French universities and engineering schools

Teaching committee membership
Member of the educational board of the Master in Aeronautical and Space Engineering (level Bac+6)

Ph.D. Thesis Defence Committee Membership

- 17/12/2015, **Fabrizio OLIVIERO**, *Preliminary design of a very large Prandtlplane freighter and airport network analysis*, Facoltà di Ingegneria Aerospaziale, Università di Pisa, Italy
- 31/08/2017, **Felix KPADONOU**, *Shape and anisotropy optimization by an isogeometric-polar method*, Université de Versailles St-Quentin-En-Yvelines, Versailles, France.

Personal skills and Competences

Computer skills	**OS:** Windows, Linux **Programming languages:** Fortran, Matlab, Python **Office packages:** Latex, Office **CAD software:** CATIA, PTC-ProEngineer **Finite Element codes:** Ansys APDL, Ansys Workbench, MSC Patran et Nastran, Hyperworks, Abaqus **Software for Control and Dynamics:** LS-DYNA, Simulink **CFD:** Ansys Fluent, Ansys CFX, Ansys CFD-Flotran, Star CCM **Optimisation Software:** Mode Frontier, Matlab (Global & Local Optimisation Toolbox), CATIA (Product Engineering Optimizer), Hyperworks (OptiStruc Module)
Languages	**Italian:** mother tongue **French:** Professional working proficiency **English:** Professional working proficiency