

**Curriculum Vitae**  
**6/4/2021**  
**Lorenzo Mario Fagiano**

Politecnico di Milano  
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### **Education**

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Ph.D., Information and Systems Engineering, Politecnico di Torino, Italy Thesis: <i>Control of Tethered Airfoils for High-Altitude Wind Energy Generation</i> Advisors: Prof. Mario Milanese, Prof. Massimo Canale	01/06 - 02/09
M.Sc. Automotive Engineering, Politecnico di Torino, Italy	09/02 - 10/04
B.Sc. Automotive Engineering, Politecnico di Torino, Italy	09/99 - 07/02

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### **Work experience**

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Associate Professor of Automation and Control Engineering Dipartimento di Elettronica, Informazione e Bioingegneria (DEIB) Politecnico di Milano, Milano, Italy	since 09/16
Scientist, Senior Scientist Department of Power Products and Sensors ABB Switzerland Ltd., Corporate Research, Baden-Dättwil, Switzerland	10/13 - 08/16
Post-doc researcher, Senior researcher (Oberassistent) Automatic Control Laboratory ETH Zürich, Switzerland	09/12 - 09/13
Visiting researcher Department of Mechanical Engineering University of California, Santa Barbara, CA	09/10 - 12/12
Post-doc researcher Department of Control and Computer Engineering Politecnico di Torino, Italy	02/09 - 08/10
Short-term research contract Department of Control and Computer Engineering Politecnico di Torino, Italy	10/05 - 12/05
Research and development engineer - vehicle dynamics & control Permanent contract Fiat Research Center, Orbassano, Italy	01/05 - 09/05

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### **Awards and qualifications**

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European Control Award 2019, with the citation “For contributions to theory of constrained optimal control under uncertainty and applications to energy systems.” <a href="https://euca-ecc.org/ecas.html">https://euca-ecc.org/ecas.html</a>	2019
Mission Innovation Champion Award 2019 for Italy. <a href="https://www.michampions.net/">https://www.michampions.net/</a>	2019
Italian qualification for full professorship, section 09/G1 (Automatica)	2014 and 2018
European Commission - Seal of Excellence for the project proposal n. 746204 “ATROS” – Aerial Tethered Robotic Systems – design, control and experimental validation. The proposal scored 91/100 and was eligible for funding but eventually not funded due to lack of call budget.	2017

Italian qualification for associate professorship, section 09/G1 (Automatica)	2014
Best reviewer acknowledgment, <i>Automatica</i>	2013
<i>IEEE Transactions on Control Systems Technology</i> outstanding paper award, for the paper “High altitude wind energy generation using controlled power kites”.	2011
ENI Award “Debut in Research” prize, awarded by ENI for the best two Italian Ph.D. theses defended in 2009 in the fields of hydrocarbons’ combustion efficiency, renewable energies, and environment protection	2010
Maffezzoni prize, awarded by Politecnico di Milano to the best Italian Ph.D. thesis defended in 2009 in the field of automatic control and applications	2010
Best reviewer acknowledgment, <i>IEEE Transactions on Automatic Control</i>	2010
Scientific performance prize, awarded by Politecnico di Torino, Italy, on the basis of research performance, ranked 8 <sup>th</sup> over more than 600 Ph.D. students in all engineering and architecture fields	2008

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### Participation to research projects and acquisition of research funds

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#### Acquired research grants and sponsored PhD positions at Politecnico di Milano (since 9/2016)

European Commission, H2020-MSCA-ITN-2020. Marie-Skłodowska-Curie Initial Training Network “Embedded learning and optimization for the next generation of smart industrial control systems” (ELO-X) (competitive call). Total project budget: € 3.884.353,92. Coordinator: University of Freiburg. Role: scientist in charge of Politecnico di Milano unit (local budget: € 522.999,36). <a href="https://elo-x.eu/">https://elo-x.eu/</a>	01/21 - 12/24
Italian Ministry of Education, University and Research (MIUR). PRIN grant “Systems of Tethered Multicopters” (competitive call). Project budget: € 182.310,00. Role: principal investigator. Call success rate: 12%.	01/20 - 12/22
Italian Ministry of Foreign Affairs (MAECI). Grant for bilateral research collaboration between Italy and Serbia “Real-time Optimization and Control for Smart Factories and Advanced Manufacturing” (competitive call). Project budget: € 138.600,00. Role: principal investigator.	01/19 - 12/21
Politecnico di Milano, interdisciplinary PhD position “Condition Monitoring of the Built Environment with Multicopter Networks” (internal competitive call). Amount: approx. € 70.000,00. Role: co-advisor of the PhD student.	11/19 - 10/22
ABB Italia S.p.A., sponsored PhD position “Methodologies for the Estimation and Monitoring from Data of Electrical Systems.” Amount: approx. € 70.000,00. Role: scientific responsible of the PhD program and advisor of the PhD student.	05/17 - 05/20

#### Acquired research contracts at Politecnico di Milano (since 9/2016)

Research collaboration contracts with national and international private companies in the field of automation and control engineering and its applications. Application domains: smart grid, airborne wind energy, fault detection in industrial components, multi-commodity network design. Companies’ names and project topics not disclosed for confidentiality reasons.

N.	Year	Budget	Duration	Role
1	2017	30.000,00 €	1 year	Principal Investigator
2	2017	17.100,00 €	1 year	Principal Investigator
3	2018	80.000,00 €	1 year	Co-PI with 1 colleague
4	2018	12.000,00 €	6 months	Principal Investigator
5	2018	23.000,00 €	1 year	Principal Investigator
6	2018	100.000,00 €	2 years	Principal Investigator
7	2019	30.000,00 €	1 year	Co-PI with 1 colleague
8	2019	15.000,00 €	1 year	Principal Investigator
9	2020	48.000,00 €	1 year	Co-PI with 1 colleague
10	2020	32.000,00 €	1 year	Principal Investigator
11	2020	30.000,00 €	1 year	Co-PI with 1 colleague

## Research projects at ABB Switzerland, Corporate Research

Research and development projects in the areas of renewable energies and power systems. 10/13 - 8/16  
Role: Project leader. Projects' cost data not disclosed due to confidentiality reasons.

## Acquired research funds at Politecnico di Torino, UC Santa Barbara and ETH Zurich (before 10/2013)

Swiss National Science Foundation – Ambizione grant (competitive call, success rate 20%) Grant acquired in 2013, resigned\*.  
“Experimental Assessment of Airborne Wind Energy”.

Total contribution : CHF 447,720.00; role: Principal Investigator. ETH Zurich

EU FP7 Marie Curie Intra-European Fellowship (competitive call, success rate 16%) Grant acquired in 2013, resigned\*.  
“Advanced Control Approaches for Airborne Wind Energy Technologies”. Total contribution: €192,622.20; role: Principal Investigator (Marie Curie fellow). ETH Zurich

California Energy Commission – Energy Innovation Small Grant (EISG) (competitive call, success rate 14%) 12/11 - 11/12

“Autonomous flexible wings for high-altitude wind energy generation”. Total contribution: \$ 95,000.00; role: Principal Investigator, University of California, Santa Barbara, CA

EU FP7 Marie Curie International Outgoing Fellowship (competitive call, success rate 20%) 9/10 - 08/13  
“Innovative Control, Identification and Estimation Methodologies for Sustainable Energy Technologies”. Total contribution: € 247,027.90; role: Principal Investigator (Marie Curie fellow). UC Santa Barbara, ETH Zurich and Politecnico di Torino

\* Grants resigned due to start of permanent position at ABB Corporate Research

## Participation to research projects before 9/2010

Regione Piemonte, Italy; “KiteNav: Power kites for naval propulsion” 2007 - 2010  
Role: post-doc researcher, technical manager, Politecnico di Torino, Italy

Regione Piemonte, Italy; “KiteGen: high-altitude wind energy generation” 2008 - 2009  
Role: researcher, Ph.D. student, Politecnico di Torino, Italy

Regione Piemonte, Italy; “Control of power kites for wind energy generation” 2006 - 2008  
Role: researcher, Ph.D. student, Politecnico di Torino, Italy

Italian Ministry of University and Research; “Advanced control and identification techniques for innovative applications”. Role: Ph.D. student, Politecnico di Torino, Italy 2006 - 2008

Italian Ministry of University and Research; “Control of advanced transmission, suspension, steering and braking systems for vehicle dynamics”. Role: Ph.D. student, Politecnico di Torino, Italy 2005 - 2007

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## Short-term research contracts and visiting positions

Modelway S.r.l., Torino, Italy. Short-term contract for the EU FP7 research project “KitVes” 09/09

Politecnico di Torino, Italy. Short-term contract for the activity “Control of kites for energy generation” 07/08 - 09/08

Katholieke Universiteit Leuven, Belgium. Visiting scholar, Dept. of Electrical Engineering, OPTEC center 10/07 - 12/07

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## Appointments in committees for Ph.D. defense and Professor qualification/selection

### Professor qualification/selection

- Dr. Chiara Toffanin, Università degli studi di Pavia, Assistant Professor. Examination date: 19-09-2019
- Dr. Ahmad Hably, Université de Grenoble, HDR. Examination date: 03-03-2017

### PhD defenses

- Dr. Milad Karimshoushtari, Politecnico di Torino, Italy. “Design of Experiments for Nonlinear System Identification”. Examination date: 09-09-2019.
- Dr. Soroush Rastegarpour, Politecnico di Milano, Italy. “Model Predictive Control Approaches for Energy Efficiency in Buildings with Heat Pump and Storage Systems”. Examination date: 16-07-2019.

- Dr. Giovanni Licitra, University of Freiburg, Germany. “Identification and Optimization of an Airborne Wind Energy System”. Examination date: 18-07-2018.
- Dr. Morgan Behrel, Université de Bretagne Occidentale. “Investigation of kites for auxiliary ship propulsion: experimental set-up, trials, data analysis and kite specs novel identification approach”. Examination date: 15-12-2017.
- Dr. Andrea Cataldo, Politecnico di Milano, Italy. “Model Predictive Control in Manufacturing Plants”. Examination date: 02-02-2017
- Dr. Stefano Raimondi Cominesi, Politecnico di Milano, Italy. “Model Predictive Control based methods for microgrid energy management”. Examination date: 02-02-2017
- Dr. Marcelo De Lellis Costa de Oliveira, Federal University of Santa Catarina, Brazil. “Airborne Wind Energy with Tethered Wings: Modeling, Analysis and Control”. Examination date: 30-09-2016
- Dr. Marko Tanaskovic, ETH Zürich. “Application of Set Membership Identification to Controller Design”. Examination date: 24-11-2015
- Farzad Noorian, University of Sydney, “Risk Management using Model Predictive Control”. Thesis submitted for examination on 31-08-2015, evaluation completed on 21-10-2015
- Dr. Aldo Zraggen, ETH Zürich. “Automatic Power Cycles for Airborne Wind Energy Generators”. Examination date: 06-10-2014
- Dr. Mariam Ahmed, Université de Grenoble (GIPSA-lab). “Control Optimization of Relaxation-cycle Electricity Generation Systems”. Examination date: 28-02-2014

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### **Appointments as referee for the evaluation of research proposals**

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Evaluator in six research proposals for international institutions. The specific proposal names are omitted due to confidentiality reasons. All of the evaluated proposals are concerned with topics related to control systems.

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### **Supervision of graduate and undergraduate student researchers**

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#### **Current graduate students (PhD candidates)**

- Leonardo Cecchin, Politecnico di Milano. Safe autonomous systems. Start date: 11/2020.
- Tareg Mohammed, Politecnico di Milano. Automation and safety of airborne wind energy systems. Start date: 11/2019.
- Michele Bolognini, Politecnico di Milano. Monitoring of the built environment with multicopter networks. Start date: 11/2019.
- Lorenzo Sabug, Politecnico di Milano. Black-box function optimization, applications to autonomous systems. Start date: 11/2019.
- Danilo Saccani, Politecnico di Milano. Design of safety-critical autonomous systems. Start date: 11/2019

#### **Advisor of graduated PhD students**

- Dr. Marco Lauricella, Politecnico di Milano (2020). Methodologies for the Estimation and Monitoring from Data of Electrical Systems.

#### **Co-advisor of graduated PhD students**

- Hafsa Farooqi, Politecnico di Milano (2018). Shrinking horizon model predictive control and railway applications. (advisor: Prof. P. Colaneri)

#### **Day-to-day advisor of graduated Ph.D. students**

- Dr. Marko Tanaskovic, ETH Zürich (2015). Application of set membership identification to controller design, adaptive model predictive control, data-driven control design. (advisor: Prof. M. Morari).
- Dr. Aldo Zraggen, ETH Zürich (2014). Autonomous operation, adaptation and real-time optimization of airborne wind energy generators. (advisor: Prof. M. Morari).
- Dr. Georg Schildbach, ETH Zürich (2014). Scenario approach for uncertain convex programs with multiple chance constraints, stochastic MPC. (advisor: Prof. M. Morari).
- Dr. Valentino Razza, Politecnico di Torino (2012). Fast model predictive control for vehicle stability, airborne wind energy for naval transportation. (advisor: Prof. M. Milanese).
- Dr. Maria C. Signorile, Politecnico di Torino (2011). Use of direct virtual sensors for feedback control, design of model predictive control laws from models derived with set membership identification. (advisor: Prof. M. Canale).

#### **Supervision of undergraduate student researchers and M.Sc. thesis projects**

- Since 2005: supervisor or co-supervisor of MSc and BSc theses concerned with Automation and Control Engineering and applications. MSc: Politecnico di Milano (18); EPF Lausanne (1); ETH Zurich (2);

Università di Modena e Reggio Emilia (1); Politecnico di Torino (5). BSc: UC Santa Barbara (1); Politecnico di Torino (1)

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## Teaching

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### Academic Year 2020/21 – Politecnico di Milano, Italy

- Principles of automatic control, undergraduate course (BSc), lecturer (10 ECTS)
- Constrained Numerical Optimization for Estimation and Control, graduate course (MSc), lecturer (5 ECTS)

### Academic Year 2019/20 – Politecnico di Milano, Italy

- Principles of automatic control, undergraduate course (BSc), lecturer (10 ECTS)
- Constrained Numerical Optimization for Estimation and Control, graduate course (MSc), lecturer (5 ECTS)
- Model Predictive Control, graduate course (PhD), co-lecturer with Prof. M. Farina, Prof. R. Scattolini (5 ECTS)

### Academic Year 2018/19 – Politecnico di Milano, Italy

- Principles of automatic control, undergraduate course (BSc), lecturer (10 ECTS)
- Constrained Numerical Optimization for Estimation and Control, graduate course (MSc), lecturer (5 ECTS)
- Project work with the company ABB SpA, graduate course (MSc), academic responsible (5 ECTS)
- Project work with the company E-Novia SpA, graduate course (MSc), academic responsible (5 ECTS)
- Nonlinear System Identification, graduate course (PhD), co-lecturer with Prof. S. Formentin, Prof. S. Garatti, Prof. G. Panzani, Prof. L. Piroddi (5 ECTS)

### Academic Year 2017/18 – Politecnico di Milano, Italy

- Principles of automatic control, undergraduate course (BSc), lecturer (10 ECTS);
- Project work with the company B&R Automation, graduate course (MSc), lecturer (5 ECTS)
- Constrained numerical optimization with control applications - theory and algorithms, graduate course (PhD), lecturer (5 ECTS)

### Academic Year 2016/17 – Politecnico di Milano, Italy

- Principles of automatic control, undergraduate course (BSc), lecturer (10 ECTS)
- Data-driven control system design, graduate course (PhD), co-lecturer with Prof. S. Formentin (5 ECTS)

### Academic Year 2009/10 – Politecnico di Torino, Italy

- Automatic control, graduate course (MSc), teaching assistant
- Principles of automatic control, undergraduate course (BSc), teaching assistant
- Model predictive control, graduate course (PhD), lecturer with Prof. M. Canale
- Automatic control II, undergraduate course (BSc), lecturer

### Academic Year 2008/09 – Politecnico di Torino, Italy

- Model predictive control, graduate course (PhD), lecturer with Prof. M. Canale
- Automatic control II, undergraduate course (BSc), lecturer/tutor.

### Academic Year 2007/08 – Politecnico di Torino, Italy

- Automatic control, graduate course (MSc), teaching assistant
- Principles of automatic control, undergraduate course (BSc), teaching assistant
- Principles of automatic control, undergraduate course (BSc), teaching assistant
- Model predictive control, graduate course (PhD), lecturer with Prof. M. Canale
- Automatic control II, undergraduate course (BSc), lecturer.

### Academic Year 2006/07 – Politecnico di Torino, Italy

- Automatic control, graduate course (MSc), teaching assistant;
- Principles of automatic control, undergraduate course (BSc), teaching assistant;
- Model predictive control, graduate course (PhD), lecturer with Prof. M. Canale
- Automatic control II, undergraduate course (BSc), lecturer/tutor.

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## Commissions of trust

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- Airborne Wind Europe (European Association). Member of the Board of Directors (2019 - )
- STEM S.r.l. (startup company, university spinoff). Member of the Board of Directors (2019 - )
- Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria. Member of the PhD advisory board, Automation and Control area (2017 - )

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## Technology transfer

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Co-founder of the company STEM S.r.l., Milano, Italy, in the field of multicopter drones (2018).

Co-founder of the company Kitenergy S.r.l., Torino, Italy, in the field of airborne wind energy (2010).

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## Patents

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- [P3] E. Ragaini, D. Angelosante, L. Fagiano, (inventors), “A method for identifying a fault event in an electric power distribution grid sector”, Patent application n. EP17168236.2 (Filed on 26 April 2017)
  - [P2] L. Fagiano, M. Milanese (inventors), “System for converting wind energy into electrical energy through the flight of power wing profiles tethered to the ground by cables of a fixed length, without passive phases, and with automatic adaptation to wind conditions”, WO/2012/127444
  - [P1] M. Milanese, L. Fagiano, I. Gerlero (inventors), “Actuating systems for controlling the flight of a power wing profile for conversion of wind energy into electrical or mechanical energy”, WO/2011/121557
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## Technical association memberships and editorial activities

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Editorial Board member of the IEEE Conference on Control Technology and Applications (CCTA), since 2019

Associate Editor of the IEEE Transactions on Control Systems Technology, since 01/2015

Organizer and Guest Editor of the special section “To Tame the Wind: advanced control applications in wind energy”, together with Prof. Manfred Morari (ETH Zürich), Prof. Mario Rotea (UT Dallas), Dr. Greg Stewart (Honeywell Automation), IEEE Transactions on Control Systems Technology, July 2013 issue.

Co-organizer of the tutorial session “Systems and Control Aspects in Wind Energy”, held at the American Control Conference 2012, together with Prof. Lucy Pao (Univ. Colorado at Boulder).

Co-organizer of the invited session “Control of Airborne Wind Energy Systems”, held at the European Control Conference 2013, together with Dr. Adrian Gambier (Fraunhofer IWES).

Co-organizer of the invited sessions “Control of Airborne Wind Energy Systems I” and “Control of Airborne Wind Energy Systems II”, together with Prof. Christopher Vermillion (Univ. North Carolina at Charlotte) and Prof. David Olinger (Worcester Polytechnic Institute). Sessions held at the 2016 American Control Conference.

Co-organizer of the open invited sessions “Control of Airborne Wind Energy Systems I” and “Control of Airborne Wind Energy Systems II”, together with Prof. Ahmad Hably (Grenoble INP), Prof. Alexandre Trofino (UFSC Brazil) and Prof. Moritz Diehl (University of Freiburg). Sessions held at the IFAC World Congress 2017.

Co-organizer of the invited sessions “Learning and Adaptivity in Predictive and Optimal Control: Theory, Applications, and Future Perspectives” I and II, together with Prof. Marcello Farina (Politecnico di Milano). Sessions held at the 2018 European Control Conference.

Co-organizer of the invited session “Control of Airborne Wind Energy Systems”, together with Prof. Christopher Vermillion (North Carolina State University). Session held at the 2019 American Control Conference.

Senior Member of IEEE and IEEE Control Systems Society

Member of IFAC Industry Committee

Reviewer for international journals and conferences: Automatica; Contr. Eng. Practice; IEEE Trans. on Automatic Control; IEEE Trans. on Control Systems Technology; IEEE Trans. on Industrial Electronics; Int. J. of Control, Automation and Systems; System and Control Letters; Int. J. of Robust and Nonlinear Control; Energy; Renewable Energy; American Control Conference; IEEE Conference on Decision and Control; IFAC World Congress

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## Invited talks at international conferences

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- Keynote plenary speaker at the Airborne Wind Energy Conference 2019, Glasgow, United Kingdom. Talk title: “Automation Challenges in AWE Systems and the Role of Academic Research”

- Plenary speaker at the 2019 European Control Conference, Napoli, Italy, 2019. Talk title: “Airborne Wind Energy, data-based predictive control and the challenges of real-world autonomous systems”. Talk available at: <https://www.youtube.com/watch?v=k1QhuXUy0F0>
- Plenary speaker at the Airborne Wind Energy Conference 2017, Freiburg, Germany. Talk title: “On autonomous take-off of tethered rigid wings in compact space for airborne wind energy”. Talk available at: [https://www.dropbox.com/s/cbgwpr98c6a9kcf/Lorenzo\\_Fagiano\\_AWEC2017.mp4?dl=0](https://www.dropbox.com/s/cbgwpr98c6a9kcf/Lorenzo_Fagiano_AWEC2017.mp4?dl=0)
- Semi-plenary speaker at the IFAC Conference on Nonlinear Model Predictive Control, Sevilla, Spain, 2015. Talk title: “Scenario and Adaptive Model Predictive Control of Uncertain Systems”
- Invited panelist in the Industry Session at the IFAC Conference on Nonlinear Model Predictive Control, Sevilla, Spain, 2015. Talk title: “Model Predictive Control in ABB”

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### **Invited seminars**

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- Imperial College London, UK, November 2020
- Università degli studi di Bergamo, Italy, December 2019
- Singidunum University of Belgrade, Serbia, October 2019
- University of Freiburg. IMTEK, Germany, July 2018
- Politecnico di Milano, Italy, October 2016
- University of Freiburg. IMTEK, Germany, August 2016
- University of Pavia, Italy, March 2015
- IMT Lucca, Italy, April 2014
- GIPSA-Lab, Grenoble, France, February 2014
- ABB Corporate Research, Baden, Switzerland, June 2013;
- Univ. of Stuttgart-Inst. for Systems Theory and Automatic Control, Germany, April 2013;
- ABB Corporate Research, Baden, Switzerland, February 2013;
- University of California at Santa Barbara, California, October 2012;
- University of Colorado at Boulder, Colorado, October 2011;
- National Renewable Energy Laboratory, Colorado, October 2011;
- ETH Zürich -Automatic Control Laboratory, Switzerland, June 2011;
- University of California at Berkeley, California, April 2011;
- ETH Zürich -Automatic Control Laboratory, Switzerland, March 2011;
- EPFL Lausanne, Switzerland, February 2011;
- University of California at Santa Barbara, California, October 2010;
- ETH Zürich -Automatic Control Laboratory, Switzerland, June 2010;
- Google Zurich, Switzerland, May 2010;
- TU Delft, The Netherlands, May 2010;
- University of Budapest, Hungary, August 2009;
- Katholieke Universiteit Leuven, Belgium, May 2009;
- Ghent University, Belgium, December 2007;
- Louvain La Neuve-CESAME, Belgium, December 2007;
- Katholieke Universiteit Leuven, Belgium, October 2007;
- University of Sannio, Italy, June 2007;
- University of Pavia, Italy, April 2007;

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### **Oral presentations of contributed papers at international conferences**

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- Airborne Wind Energy Conference, Glasgow, United Kingdom, 2019
- European Control Conference, Limassol, Cyprus, 2018
- IFAC World Congress, Toulouse, France, 2017
- American Control Conference (ACC) 2016, Boston, MA, 2016
- IEEE Conference on Decision and Control, Los Angeles, CA, 2014
- IFAC World Congress 2014, Cape Town, South Africa, 2014;
- Airborne Wind Energy Conference 2013, Berlin, Germany, 2013;
- 11th European Control Conference, Zürich, Switzerland, 2013;
- IEEE Conference on Decision and Control, Maui, Hawaii, 2012
- Airborne Wind Energy Conference 2012, Hampton, Virginia, 2012;
- American Control Conference 2012, Montreal, Canada, 2012;
- IEEE Conference on Decision and Control, Orlando, Florida, 2011;

- IEEE Multi-Conference on Systems and Control, Denver, Colorado, 2011;
- IEEE Conference on Decision and Control, Atlanta, Georgia, 2010;
- Airborne Wind Energy Conference 2010, Stanford, California, 2010;
- American Control Conference 2010, Baltimore, Maryland, 2010;
- International Conference on Renewable Energy: generation and applications (ICREGA 2010), Al Ain, United Arab Emirates, 2010;
- 10th European Control Conference, Budapest, Hungary, 2009;
- International Workshop on Assessment and Future Directions of NMPC, Pavia, Italy, 2008;
- 17th IFAC World Congress, Seoul, Korea, 2008;
- 9th European Control Conference, Kos, Greece, 2007;
- Workshop “Nonlinear Model Predictive Control - Software and Applications”, Loughborough, UK, 2007.

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### Technical skills

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**Experimental activities.** Experience with electrical motors, drives, positioning and inertial sensors, real-time machines and rapid prototyping systems (dSpace® and xPC Target® products), for an example of completed project see <http://youtu.be/2ek65AilkqM>

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### Languages

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**Italian:** mother tongue

**English:** fluent

**German:** basic

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### Complete publication list

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#### Papers published or in press in international peer-reviewed journals

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| [J55] | Chris Vermillion et al., “Electricity in the Air: Insights From Two Decades of Advanced Control Research and Experimental Flight Testing of Airborne Wind Energy Systems”, <i>Annual Reviews in Control</i> , accepted.  | 2021 |
| [J54] | D. Todeschini, L. Fagiano, C. Micheli, and A. Cattano, “Control of a rigid wing pumping airborne wind energy system in all operational phases,” <i>Control Engineering Practice</i> , vol. 111, p. 104794  | 2021 |
| [J53] | E. Terzi, T. Bonetti, D. Saccani, M. Farina, L. Fagiano, R. Scattolini, “Learning-based predictive control of the cooling system of a large business centre”, <i>Control Engineering Practice</i> , vol. 97, pp. 104348  | 2020 |
| [J52] | T. Samad et al., “Industry engagement with control research: Perspective and messages”, <i>Annual Reviews in Control</i> , vol. 49, pp. 1-14,  | 2020 |
| [J51] | M. Lauricella, L. Fagiano “Set Membership identification of linear systems with guaranteed simulation accuracy”, <i>IEEE Transactions on Automatic Control</i> , vol. 65, n. 12, pp. 5189-5204   | 2020 |
| [J50] | E. Terzi, L. Fagiano, M. Farina, R. Scattolini, “Structured modelling from data and optimal control of the cooling system of a large business center”, <i>Journal of Building Engineering</i> , Vol. 28, 101043  | 2020 |
| [J49] | E. Schmidt, M. De Lellis Costa de Oliveira, R. Saraiva da Silva, L. Fagiano, A. Trofino Neto, “In-Flight Estimation of the Aerodynamics of Tethered Wings for Airborne Wind Energy”, <i>IEEE Transactions on Control Systems Technology</i> , vol 28, n.4, pp. 1309-1322 | 2020 |
| [J48] | H. Farooqi, L. Fagiano, P.Colaneri, D. Barlini, “Shrinking horizon parametrized predictive control with application to energy-efficient train operation”, <i>Automatica</i> , vol. 112, pp. 108635   | 2020 |
| [J47] | S. Watson et al., “Future emerging technologies in the wind power sector: A European perspective”, <i>Renewable and Sustainable Energy Reviews</i> , vol. 113, pp. 109270  | 2019 |
| [J46] | E. Terzi, M. Farina, L. Fagiano, R. Scattolini, “Learning-based predictive control for linear systems: A unitary approach”, <i>Automatica</i> , vol. 109, pp. 108473   | 2019 |



- [J45] M. Tanaskovic, L. Fagiano, V. Gligorovski, “Adaptive model predictive control for linear time varying MIMO systems”, *Automatica*, vol. 105, pp. 237-245 2019
- [J44] L. Fagiano, M. Lauricella, D. Angelosante, E. Ragaini, “Identification of Induction Motors Using Smart Circuit Breakers”, *IEEE Transactions on Control Systems Technology*, vol. 27, n. 6, pp.2638-2646 2019
- [J43] L. Fagiano, E. Nguyen-Van, F. Rager, S. Schnez, C. Ohler, “Autonomous Take-Off and Flight of a Tethered Aircraft for Airborne Wind Energy”, *IEEE Transactions on Control Systems Technology*, vol. 26, n. 1, pp.151-166 2018
- [J42] L. Fagiano, E. Nguyen-Van, F. Rager, S. Schnez, C. Ohler, “A Small-Scale Prototype to Study the Take-Off of Tethered Rigid Aircrafts for Airborne Wind Energy”, *IEEE/ASME Transactions on Mechatronics*, vol. 22, n. 4, pp.1869-1880 2017
- [J41] L. Fagiano, S. Schnez, “On the Take-off of Airborne Wind Energy Systems Based on Rigid Wings”, *Renewable Energy*, vol. 107, pp. 473-488 2017
- [J40] M. Tanaskovic, L. Fagiano, C. Novara, M. Morari, “Data-driven control of nonlinear systems: an on-line direct approach”, *Automatica*, vol. 75, pp. 1-10 2017
- [J39] L. Fagiano, C. Novara, “Learning a nonlinear controller from data: theory, computation and experimental results”, *IEEE Transactions on Automatic Control*, vol. 61, n. 7, pp. 1854-1868 2016
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