

## Curriculum vitae

### **Davide M. Raimondo**

Born: 07-11-1981, Pavia, Italy

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#### EDUCATION

- |                      |   |                |
|----------------------|---|----------------|
| Nov. 05 –<br>Nov. 08 | UNIVERSITÀ DEGLI STUDI DI PAVIA<br><b>Ph.D. in electronic, computer and electrical engineering</b> ,<br>Identification and Control of Dynamic Systems Laboratory, Department<br>of Computer Engineering and Systems Science. Thesis: <i>Nonlinear Model<br/>Predictive Control: Stability, Robustness and Applications</i> . Advisor: Prof.<br>Lalo Magni (Ph.D. thesis defended on January 16, 2009) | Pavia<br>Italy |
| Oct. 03 –<br>Jul. 05 | UNIVERSITÀ DEGLI STUDI DI PAVIA<br><b>Masters</b> in Automatic Control Engineering – Thesis: <i>Robust control of<br/>nonlinear systems</i> (110/110 cum laude)   | Pavia<br>Italy |
| Oct. 00 –<br>Sep. 03 | UNIVERSITÀ DEGLI STUDI DI PAVIA<br><b>Bachelor</b> in Computer Science Engineering – Thesis: <i>Modeling and<br/>control of a crane</i> (110/110 cum laude)   | Pavia<br>Italy |
| Nov. 00 –<br>Jul. 05 | ALMO COLLEGIO BORROMEO<br><b>Student</b> . Almo Collegio Borromeo has been recognized by the Italian<br>Ministry of Education, Universities and Research as a “Highly qualified<br>cultural institute”.   | Pavia<br>Italy |
| Nov. 00 –<br>Nov. 05 | INSTITUTE FOR ADVANCED STUDY OF PAVIA (IUSS)<br><b>Student</b> . In July 2005, IUSS-Pavia was recognized as an independent<br>and autonomous “Scuola Superiore ad ordinamento speciale” in virtue<br>of the excellent quality of the activities carried out, attaining the same<br>status as the Scuola Normale and the Scuola Sant’Anna in Pisa, and the<br>SISSA in Trieste.                        | Pavia<br>Italy |

#### LANGUAGES

**Italian:** mother tongue - **english:** proficient - **spanish:** fluent - **german:** basic knowledge.

#### QUALIFICATIONS

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|---------|---|----------------|
| Jan. 14 | Qualified at the national level for the position of Associate Professor,<br>section 09/G1 Automatica  | Italy          |
| Nov. 05 | UNIVERSITÀ DEGLI STUDI DI PAVIA<br><i>Professional practice examination for <b>engineering licence</b> (“esame di<br/>stato”) passed in Pavia, Italy.</i> | Pavia<br>Italy |

## ACADEMIC AND RESEARCH EMPLOYMENT

May 15 -	UNIVERSITÀ DEGLI STUDI DI PAVIA <b>Associate Professor</b> in the Identification and Control of Dynamic Systems Laboratory, Department of Electrical, Computer and Biomedical Engineering	Pavia Italy
Dec. 10 - May 15	UNIVERSITÀ DEGLI STUDI DI PAVIA <b>Assistant Professor (tenured 29/12/2013)</b> in the Identification and Control of Dynamic Systems Laboratory, Department of Electrical, Computer and Biomedical Engineering	Pavia Italy
Jan. 09 - Dec. 10	SWISS FEDERAL INSTITUTE FOR TECHNOLOGY (ETH) <b>Postdoc</b> in the Automatic Control Laboratory, Department of Information Technology and Electrical Engineering	Zürich Switzerland
Nov. 08 - Dec. 08	SWISS FEDERAL INSTITUTE FOR TECHNOLOGY (ETH) <b>Employee</b> in the Automatic Control Laboratory, Department of Information Technology and Electrical Engineering	Zürich Switzerland
Jul. 07 - Jan. 08	UNIVERSITÀ DEGLI STUDI DI PAVIA <b>Contracted</b> for the development of predictive control techniques for biological applications	Pavia Italy
Sep. 05 - Nov. 05	UNIVERSITÀ DEGLI STUDI DI PAVIA <b>Contracted</b> for the Development of robust model predictive controllers for nonlinear systems	Pavia Italy

## OTHER WORK EXPERIENCE

Sep. 01 - Jul. 05	ALMO COLLEGIO BORROMEO <b>Responsible</b> of system administration	Pavia Italy
Jul. 00 - Aug. 00	GSMBOX s.p.a. <b>Contracted</b> as computer programmer	Pavia Italy

## TEACHING AND STUDENT ADVISING

### Lecturer

2014-2015	Basics of Automatic Control, Università di Pavia (~100 hours/year, 9 credits)	Pavia Italy
2013-2014	Basics of Automatic Control, Università di Pavia (~100 hours/year, 9 credits)	Pavia Italy
2012-2013	Automatic Control and Process Control, Università di Pavia (~100 hours/year, 9 credits)	Mantova Italy
2011-2012	Automatic Control and Process Control, Università di Pavia (~100 hours/year, 9 credits)	Mantova Italy

2006-2007	Introduction to systems analysis, Università di Pavia (~20 hours/year, 1 credit)	Pavia Italy
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### **Teaching assistant**

2009-2011	Model Predictive Control, ETH (seminars, ~10 hours/year)	Zürich Switzerland
2007	Master in Methods for Management of Complex Systems, IUSS, Pavia (seminars ~10 hours)	Pavia Italy
2001 –2005	Tutor of computer programming (Java), Università di Pavia (~50 hours/year)	Pavia Italy

### **Teaching rating**

According to the requirements necessary to apply for the *una tantum* incentive for the years 2012 and 2013, I declare to have obtained a rating equal to or greater than 7 in the teaching evaluation questionnaires, derived from the average of the items of evaluation D7, D8 and D9:

- D7: Are the arguments clearly stated by the professor?
- D8: Is the professor available for clarifications and explanations?
- D9: Is the schedule of lectures, tutorials and other educational activities respected?

### **Participation as president in exam committees**

- Course: *Basics of Automatic Control*, Università di Pavia, Pavia, Italy  
Number of evaluated tests: 167  
Number of exam sessions: 7
- Course: *Automatic Control and Process Control*, Università di Pavia, Mantova, Italy  
Number of evaluated tests: 85  
Number of exam sessions: 18

### **Student advising**

#### **Master theses**

*Pavia – Italy*

1. Optimal placement of **wind turbines** on a continuous domain: an MILP-based approach, A. Arbasini
2. **Fast evaluation** of explicit nonlinear MPC, F. Fassina (Erasmus at Ruhr Universität Bochum)
3. Automatic remote control of 1:27 scale **race cars**, F. Fiorentino (Erasmus at Ruhr Universität Bochum)
4. Optimal placement of **wind turbines** of a wind farm, D. Colli
5. Design and implementation of **infrared vision system** and **braking control** of a small-scale train, A. Barbieri
6. Nonlinear model predictive control of **glycaemia** in type 1 diabetic patients, S. Rivero
7. Validation of a linear model predictive control of **glycaemia** in type 1 diabetic patients,

G. Ferrario

8. Experimentation in silico of predictive control algorithms for the control of **glycaemia** in type 1 diabetic patients, R. Tessera
9. Modeling and control of the start-up phase of a **combined cycle power plant**, A. Ferramosca
10. Predictive control of the start-up phase of a **combined cycle power plant**, D. Polli

*Zürich – Switzerland*

1. Implementation of a **stochastic reachability** framework for **surveillance** with pan-tilt-zoom cameras, S. Aufdenblatten
2. **Reachability** analysis of **nonlinear systems**: an approach based on conservative approximations, O. Huber
3. **Patrolling** algorithms for pan-tilt-zoom **cameras**, M. Pattarello
4. Control of Multiple Cameras for Tracking and **Surveillance**, D. Sturzenegger
5. A set theoretic method for verifying feasibility of a **fast** explicit **nonlinear** model predictive **controller**, S. Riverso

Bachelor theses

*Pavia – Italy*

1. **Design and construction** of a **small-scale submarine**, C. Vazzana
2. Design and validation of a **control system** for a **small-scale submarine**, D. Gioria
3. **Design and implementation** of an automatic **system for handling goods**, L. Vantadori
4. **Modeling and control** of a **system for handling goods**, A. Spinoglio
5. Simulation and **implementation** of **control** strategies for an **RC helicopter**, F. Seccamonte
6. **Path following control** of a Lego Mindstorm mobile vehicle, D. Procop
7. **Speed control** of a small scale train with MPC, M. Arcuri
8. Design and implementation of a 3D **infrared vision system**, M. Grecchi
9. Adaptive control of an RC helicopter based on the **modeling** of the **lithium battery**, G. Bellazzi
10. Design of a remote control system for an **RC helicopter**, A. Ricci
11. **Embedded tracking control** of an inverted pendulum, M. Rotulo
12. **Embedded predictive control** of an inverted pendulum, A. Mezzadra
13. Implementation HW and SW of an angular position transducer for a laboratory **crane**, T. Barroero

*Zürich – Switzerland*

1. MPC based **Trajectory Tracking** for 1:43 scale race cars, L. Wunderli
2. Software Framework for **Position Control** of 1:43 scale **race cars**, F. Ferrara



Role: participant

- FEEDNETBACK (2008-2011)  
EU's Senventh Framework Programme  
Role: participant
- IMPROVE (2009-2012) *Implementing manufacturing science solutions to increase equipment productivity and fab performance*  
European Nanoelectronics Initiative Advisory Council  
Role: participant
- AP@HOME (2010-2014) *Bringing the Artificial Pancreas Home*  
EU's Senventh Framework Programme  
Role: participant
- CESI-RICERCA, Centro Elettrotecnico Sperimentale Italiano (2006)  
Research contract number: ODAR06436  
*Optimized procedures for the start-up of combined cycle plants*  
Role: participant
- PROJECT PAVIA-BOSTON  
Project promoted by the Pro-Rector in charge of the Third Mission, University of Pavia.  
Total funding received for research stays at MIT 12K€

## EDITORIAL ACTIVITIES AND PROGRAM COMMITTEES

### Editorial Board

May 2015 - Subject editor for the journal Optimal Control Applications and Methods

### International Program Committees

Nov. 2015 - Member of the stirring committee of the IEEE Technical committee on Process Control

2015 International program committee member of the Nonlinear Model Predictive Control 2015 (NMPC'15) Sevilla Spain

2015 Conference Editorial Board member of the European Control Conference 2014 (ECC'15) Linz Austria

2015 International program committee member of the International Symposium on Advanced Control of Chemical Processes (ADCHEM 2015) Whistler Canada

2014 Conference Editorial Board member of the European Control Conference 2014 (ECC'14) Strasbourg France

2013 International program committee member of the European Control Conference 2013 (ECC'13) Zürich Switzerland

2012	International program committee member of the Nonlinear Model Predictive Control 2012 (NMPC'12)	Noordwijkerhout <i>The Netherlands</i>
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### **Organization of scientific events**

2010	Invited session Nonlinear Model Predictive Control, 10 <sup>th</sup> IFAC Symposium on Nonlinear Control Systems	Bologna <i>Italy</i>
2008	Co-chair of the International workshop on Assessment and Future Direction of Nonlinear Model Predictive Control	Pavia <i>Italy</i>
2007	Invited session New Development in NMPC, 7 <sup>th</sup> IFAC Symposium on Nonlinear Control Systems	Pretoria <i>South Africa</i>

### **Reviewer activity**

Reviewer of Applied Mathematics and Computation, Automatica, IEEE Transaction on Automatic Control, IEEE Transaction on Biomedical Engineering, International Journal of Control, International Journal of Adaptive Control and Signal Processing, International Journal of Robust and Nonlinear Control, International Journal of System Science, Journal of Process Control, SIAM Journal on Control and Optimization, System & Control Letters, Springer Lectures Notes in Control and Information Sciences Series (LNCIS), Conference on Nonlinear Model Predictive Control (NMPC), European Control Conference (ECC), IEEE American Control Conference (ACC), IEEE Conference on Decision and Control (CDC), IFAC World Congress, IFAC Symposium on Nonlinear Control Systems (NOLCOS), IFAC Workshop on Estimation and Control of Networked Systems, International Symposium on Mathematical Theory of Networks and Systems, Mediterranean Conference on Control and Automation.

### **PH.D. STUDENTS**

#### **Ph.D. courses**

2015	Model Predictive Control (Special Topics in Cyber-Physical Systems), Computer Engineering PhD School, TU Wien (role: lecturer, ~30 hours)	Vienna <i>Austria</i>
2014	Short course on Moving Horizon Estimation as part of the Hybrid Systems Course, TU Wien (role: lecturer, ~10 hours)	Vienna <i>Austria</i>
2014	Model Predictive Control (Special Topics in Cyber-Physical Systems), Computer Engineering PhD School, TU Wien (role: lecturer, ~30 hours)	Vienna <i>Austria</i>

#### **Advising**

Nov. 12 -	<i>Roberto Giuseppe Marseglia</i> (supervisor: Prof. Davide M. Raimondo) Topic: Fault tolerant control	Pavia <i>Italy</i>
Nov. 13 -	<i>Marcello Torchio</i> (supervisor: Prof. Lalo Magni) Topic: Energy efficient control	Pavia <i>Italy</i>

### **External Ph.D. thesis committee member**

2014	PhD committee member for Feng Xu, Automatic Control Department, Universitat Politècnica de Catalunya	Barcelona Spain
2013	PhD committee member for Isabel Jurado Flores, Department of Systems Engineering and Automation, University of Seville	Sevilla Spain

### **Management of seminars and international research exchange visits**

#### Organization of PhD courses at University of Pavia

Sep. 2015	Prof. Richard D. Braatz, Process Systems Engineering Laboratory, Massachusetts Institute of Technology, <i>The LMI/BMI Approach to Optimal Control</i> (12 hours)	Pavia Italy
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#### Organization of seminars at University of Pavia

Jul. 2013	Joel Paulson, Process Systems Engineering Laboratory, Massachusetts Institute of Technology, <i>Stochastic Nonlinear Model Predictive Control with Probabilistic Constraints</i>	Pavia Italy
May 2014	Prof. Ali Mesbah, Dept. of Chemical and Biomolecular Engineering, University of California, Berkeley, <i>Advanced Control for Complex Dynamical Systems</i>	Pavia Italy
Jul. 2013	Dr. Joseph K. Scott, Process Systems Engineering Laboratory, Massachusetts Institute of Technology, <i>Input Design for Guaranteed Fault Diagnosis Using Zonotopes</i> .	Pavia Italy
Mar. 2013	Stefano Grassi, Department of Civil, Environmental and Geomatic, ETH Zurich, <i>Optimal spatio-temporal exploitation of renewable energy resources: biomass and wind case studies</i> .	Pavia Italy

#### Organization of research exchange visits at University of Pavia

1. Prof. Richard D. Braatz, Process Systems Engineering Laboratory, Massachusetts Institute of Technology duration: 3 days (Sept. 2015). The exchange was possible thanks to the project Pavia-Boston.
2. Dr. Joseph K. Scott, Postdoc, Process Systems Engineering Laboratory, Massachusetts Institute of Technology, duration: 1 month (June-July 2013).
3. Joel Paulson, Ph.D. student, Process Systems Engineering Laboratory, Massachusetts Institute of Technology, duration: 1 month (June-July 2014). The visit was possible thanks to the project Cariplo "Support to the internationalization of Ph.D. students".
4. Lucas Charles Foguth, Ph.D. student, Process Systems Engineering Laboratory, Massachusetts Institute of Technology, duration: 1 month (June-July 2015). The exchange was possible thanks to the project Pavia-Boston.

#### Organization of research exchange visits at Massachusetts Institute of Technology (MIT)

1. Roberto Marseglia, Ph.D. student, duration: 5 months (August-December 2013).



2. Roberto Marseglia, Ph.D. student, duration: 1.5 months (November-December 2014). The visit was possible thanks to the project Pavia-Boston.
3. Marcello Torchio, Ph.D. student, duration: 5 months (November 2014-March 2015).

### **Results in technology transfer**

#### Patents

- Magni L. D. M. Raimondo, G. De Nicolao, C. Dalla Man and C. Cobelli **Predictive Control Based System And Method For Control Of Insulin Delivery In Diabetes Using Glucose Sensing**, International Patent Application Serial No. PCT/US2008/082063, filed 31/10/2008

### **Invited seminars, participation to international conferences and research exchange visits**

#### Participation in International Conferences

Overall 16 presentations held at international conferences (SysTol, ECC, NMPC, IFAC WC, IFAC NOLCOS, IFAC NecSys'09, Diabetes Technology Society Annual Meetings).

#### Invited talks held at International Conferences

Jul. 13	<i>Approximate nonlinear explicit MPC based on reachability analysis</i> , European Control Conference (ECC) 2013	Zürich Switzerland
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#### Papers at invited sessions of international conferences

Sep. 10	<i>Fast explicit nonlinear model predictive control via multiresolution function approximation with guaranteed stability</i> , Symposium on Nonlinear Control Systems (NOLCOS) 2010	Bologna Italy
Sep. 10	<i>A Nonlinear Model Predictive Control Scheme with Multirate Integral Sliding Mode</i> , Symposium on Nonlinear Control Systems (NOLCOS) 2010	Bologna Italy
Aug. 07	<i>Regional Input-to-State Stability of Min-Max Model Predictive Control</i> , Symposium on Nonlinear Control Systems (NOLCOS) 2007	Pretoria South Africa
Aug. 07	<i>A Decentralized MPC Algorithm for Nonlinear Systems</i> , Symposium on Nonlinear Control Systems (NOLCOS) 2007	Pretoria South Africa

#### Research exchange visits

Oct. 15 - Nov. 15	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) Prof. Braatz group, Department of Chemical Engineering	Cambridge USA
Jan. 15 - Feb. 15	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) <b>Visiting scholar</b> in Prof. Braatz group, Department of Chemical Engineering	Cambridge USA

<i>Sep. 14 - Nov. 14</i>	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) <b>Visiting scholar</b> in Prof. Braatz group, Department of Chemical Engineering	Cambridge USA
<i>Mar. 14 - May. 14</i>	VIENNA UNIVERSITY OF TECHNOLOGY (TU WIEN) <b>Visiting professor</b> at the Computer Engineering PhD School	Vienna Austria
<i>Aug. 13 - Sep. 13</i>	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) <b>Visiting scholar</b> in Prof. Braatz group, Department of Chemical Engineering	Cambridge USA
<i>Mar. 12 - Jun. 12</i>	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) <b>Visiting scholar</b> in Prof. Braatz group, Department of Chemical Engineering	Cambridge USA
<i>Oct. 06 - May 07</i>	UNIVERSIDAD DE SEVILLA <b>Academic Guest</b> in the Department of Automation and System Engineering	Sevilla Spain

### Invited Seminars

Dec 15	<i>Input Design for Active Fault Diagnosis</i> , Imperial College London, <i>Control and Power Seminar Series</i>	London UK
Oct 15	<i>Input Design for Active Fault Diagnosis</i> , Boston University, <i>Center for Information &amp; Systems Engineering</i>	Boston USA
Apr 15	<i>Real-time Model Predictive Control for Optimal Charging of a Li-ion Battery</i> , TU Wien, <i>Ring Lecture Current Trends in Computer Science</i>	Vienna Austria
May 14	<i>Active Fault Diagnosis for Uncertain Systems</i> , TU Wien, <i>Ring Lecture Current Trends in Computer Science</i>	Vienna Austria
Jan. 14	<i>Active Input Design for Fault Diagnosis: a Set-Based Approach</i> , Automatic Control Laboratory, TU Wien	Vienna Austria
Jan. 14	<i>Active Input Design for Fault Diagnosis: a Set-Based Approach</i> , Automatic Control Laboratory, ABB Schweiz AG	Baden Switzerland
Jan. 14	<i>Active Input Design for Fault Diagnosis: a Set-Based Approach</i> , Automatic Control Laboratory, IfA, ETH	Zürich Switzerland
Sep. 13	<i>Active Input Design for Fault Diagnosis: a Set-Based Approach</i> , Automatic Control Laboratory, EPFL	Lausanne Switzerland
Sep. 13	<i>Design of Active Inputs for Set-Based Fault Diagnosis</i> , Mitsubishi Electric Research Laboratories	Cambridge USA
Apr. 13	<i>Optimal placement of wind turbines</i> , Institute of Cartography and Geoinformation (IKG), ETH	Zürich Switzerland
May 12	<i>Time-optimal control for constrained nonlinear systems: A fast explicit approximation</i> , Process systems engineering laboratory seminar, Department of Chemical Engineering, MIT	Cambridge USA

Jan. 12	<i>An approximate explicit minimum time controller for nonlinear systems with feasibility and stability guarantees,</i> ABB Schweiz AG	Baden Switzerland
Oct. 11	<i>An approximate explicit minimum time controller for nonlinear systems with feasibility and stability guarantees,</i> Ruhr-Universität Bochum	Bochum Germany
May 08	<i>Robust Nonlinear Model Predictive Control,</i> Automatic Control Laboratory, Department of Information Technology and Electrical Engineering, ETH	Zürich Switzerland

### BIBLIOMETRIC PROFILE

Davide M. Raimondo currently (December 9, 2015) has an h index of 11 (Scopus) - 15 (Google Scholar) and a number of citations equal to 838 (Scopus) - 1485 (Google Scholar).

#### Full Publication List

Books	Citations Scopus	Citations Scholar
1. L. Magni, D.M. Raimondo, F. Allgower (EDS), <b>Nonlinear model predictive control: Towards new challenging applications</b> , Springer Lecture Notes in Control and Information Sciences series, vol. 384, 2009.		92

International Journals	Citations Scopus	Citations Scholar	Impact Factor
1. D.M. Raimondo, M. Rubagotti, C.N. Jones, L. Magni, A. Ferrara, M. Morari, <b>Multirate sliding mode disturbance compensation for model predictive control</b> , International Journal of Robust and Nonlinear Control (IJRNC), published online, DOI: 10.1002/rnc.3244, 2014			3.176
2. N. Kariotoglou, D.M. Raimondo, S. Summers, J. Lygeros, <b>Design of intelligent surveillance systems using stochastic reachability and hierarchical task allocation</b> , Journal of Dynamic Systems, Measurement, and Control, 137(3), 031008, 2014		1	1.078
3. H. Zisser, E. Renard, B. Kovatchev, C. Cobelli, A. Avogaro, R. Nimri, B.A. Buckingham, H.P. Chase, F.J. Doyle III, J. Lum, P. Calhoun, C. Kollman, E. Dassau, A. Farret, J. Place, M. Breton, C. Dalla Man, S. Del Favero,			

D. Bruttomesso, A. Filippi, R. Scotton, L. Magni, C. Toffanin, D.M. Raimondo, G. De Nicolao, M. Phillip, E. Atlas, I. Muller, S. Miller, R.W. Beck, Control to Range Study Group, <b>Multi-center Closed-Loop Insulin Delivery Study Identifies Challenges for Keeping Blood Glucose in a Safe Range by a Control Algorithm in Adults and Adolescents with Type 1 Diabetes From Various Sites</b> , Diabetes Technology and Therapeutics, 16(10), 613-622, 2014	7	14	2.106
4. H.P. Chase, F.J. Doyle, III, H. Zisser, E. Renard, R. Nimri, C. Cobelli, B.A. Buckingham, D.M. Maahs, S. Anderson, L. Magni, J. Lum, P. Calhoun, C. Kollman, R.W. Beck, Control to Range Study Group, <b>Multicenter closed-loop/hybrid meal bolus insulin delivery with type 1 diabetes</b> , Diabetes Technology and Therapeutics, 16(10), 623-632, 2014	4		2.106
5. M. Jiang, X. Zhu, M. Molaro, M. Rasche, H. Zhang, K. Chadwick, D.M. Raimondo, K.K.K. Kim, L. Zhou, Z. Zhu, M. Wong, D. O'Grady, D. Hebrault, J. Tedesco, R.D. Braatz, <b>Modification of Crystal Shape through Deep Temperature Cycling</b> , Industrial & Engineering Chemistry Research, 53(13), 5325-5336, 2014	5	8	3.512
6. J. K. Scott, R. Findeisen, R. D. Braatz, D. M. Raimondo, <b>Input Design for Guaranteed Fault Diagnosis Using Zonotopes</b> , Automatica, 50(6),1580-1589, 2014	4	11	3.020
7. M. N. Zeilinger, D. M. Raimondo, A. Domahidi, M. Morari, C. N. Jones, <b>On Real-time Robust Model Predictive Control</b> , Automatica, 50(3), 683-694, 2014	10	16	3.020
8. D. Axehill, T. Besselmann, D. M. Raimondo, M. Morari, <b>A Parametric Branch and Bound Approach to Suboptimal Explicit Hybrid MPC</b> , Automatica, 50(1), 240-246, 2014	3	9	3.020
9. F. Tedesco, D. M. Raimondo, A. Casavola, <b>Collision avoidance command governor for multi-vehicle unmanned systems</b> , International Journal of Robust and Nonlinear Control (IJRNC), 24(16), 2309-2330, 2014	1	3	3.176
10. M. Rubagotti, D.M. Raimondo, A. Ferrara and L. Magni, <b>Robust model predictive control with integral sliding mode in continuous-time sampled-data nonlinear systems</b> . IEEE Transactions on Automatic Control, 56(3), 556-570, 2011	30	43	2.779
11. L. Magni, D. M. Raimondo, C. Dalla Man, G. De Nicolao, B. Kovatchev, C. Cobelli, <b>Model Predictive Control of glucose concentration in type I diabetic patients: an in silico trial</b> , Biomedical Signal Processing and Control, 4(4), 338-346, 2009	73	90	1.42
12. G. Pin, D. M. Raimondo, L. Magni, T. Parisini, <b>Robust Model Predictive Control of Nonlinear Systems</b>			

<b>with Bounded and State-Dependent Uncertainties</b> , IEEE Transactions on Automatic Control, 54(7), 1681-1687, 2009	38	48	2.779
13. D. M. Raimondo, D. Limon, M. Lazar, L. Magni and E. F. Camacho, <b>Min-max model predictive control of nonlinear systems: a unifying overview on stability</b> , European Journal of Control, 15(1), 5-21, 2009	42	68	0.826
14. L. Magni, D. M. Raimondo, C. Dalla Man, M. Breton, S. Patek, G. de Nicolao, C. Cobelli, and B. Kovatchev. <b>Evaluating the efficacy of closed-loop glucose regulation via control-variability grid analysis (CVGA)</b> . Journal of Diabetes Science and Technology, 2(4), 630-635, 2008	79	97	n.a.
15. E. Franco, L. Magni, T. Parisini, M. M. Polycarpou and D. M. Raimondo, <b>Cooperative Constrained Control of Distributed Agents with Nonlinear Dynamics and Delayed Information Exchange: a Stabilizing Receding Horizon Approach</b> , IEEE Transactions on Automatic Control, 53(1), 324-338, 2008	67	97	2.779
16. L. Magni, D. M. Raimondo, L. Bossi, C. Dalla Man, G. De Nicolao, B. Kovatchev and Claudio Cobelli, <b>Model Predictive Control of type 1 diabetes: an in silico trial</b> , Journal of Diabetes Science and Technology, 1(6), 804-812, 2007	135	188	n.a.
17. D.M. Raimondo, L. Magni and R. Scattolini, <b>Decentralized MPC of Nonlinear Systems: an Input-to-State Stability Approach</b> , International Journal of Robust and Nonlinear Control, 17(17), 1651-1667, 2007	60	93	3.176
18. C. Dalla Man, D. M. Raimondo, R. A. Rizza, C. Cobelli, <b>GIM, Simulation Software of Meal Glucose-Insulin Model</b> , Journal of Diabetes Science and Technology, 1(3), 323-330, 2007	98	150	n.a.
19. L. Magni, D. M. Raimondo and R. Scattolini, <b>Regional Input-to-state Stability for Nonlinear Model Predictive Control</b> , IEEE Transactions on Automatic Control, 51(9), 1548-1553, 2006	96	113	2.779

<b>Book Chapters</b>	<b>Citations Scopus</b>	<b>Citations Scholar</b>
1. F. Tedesco, D. M. Raimondo, A. Casavola, <b>A distributed reference management scheme in presence of non-convex constraints: an MPC based approach</b> , Distributed MPC Made Easy		2
2. D. M. Raimondo, S. Riverso, S. Summers, C.N. Jones, J. Lygeros, M. Morari, <b>A set theoretic method for verifying feasibility of a fast explicit nonlinear Model Predictive Controller</b> , Springer book documenting the LCCC Theme Semester, pp. 289-311, 2011		7

3.	D. M. Raimondo, D. Limon, T. Alamo and L. Magni, <b>Robust Model Predictive Control Algorithms for Nonlinear Systems: an Input-to-State Stability Approach</b> , Model Predictive Control, Tao Zheng (Ed.), ISBN: 978-953-307-102-2, Sciyo, 2010		3
4.	D. Limon, T. Alamo, D. M. Raimondo, J. M. Bravo, D. Munoz de la Pena, A. Ferramosca and E. F. Camacho, <b>Input-to-State Stability: an unifying framework for Robust Model Predictive Control</b> , Nonlinear Model Predictive Control, LNCIS 384, pp. 1-26, 2009	26	102

International Conferences		Citations Scopus	Citations Scholar
1.	L.C. Foguth, J.A. Paulson, R.D. Braatz, and D.M. Raimondo, <b>Fast Robust Model Predictive Control of High-dimensional Systems</b> , ECC 2015		
2.	M. Torchio, N.A. Wolff, D.M. Raimondo, L. Magni, U. Krewer, B. Gopaluni, J. Paulson, R.D. Braatz, <b>Real-time Model Predictive Control for the Optimal Charging of a Lithium-ion Battery</b> , ACC 2015		1
3.	G.R. Marseglia, A. Arbasini, S. Grassi, M. Raubal, D.M. Raimondo, <b>Optimal placement of wind turbines on a continuous domain: an MILP-based approach</b> , ACC 2015		
4.	M. Torchio, L. Magni, D.M. Raimondo, <b>A mixed integer SDP approach for the optimal placement of energy storage devices in power grids with renewable penetration</b> , ACC 2015		
5.	J.A. Paulson, D.M. Raimondo, R. Findeisen, R.D. Braatz, S. Streif, <b>Active Fault Diagnosis for Uncertain Nonlinear Systems</b> , ECC 2014	2	3
6.	G.R. Marseglia, J.K. Scott, L. Magni, R.D. Braatz, D.M. Raimondo, <b>A Hybrid Stochastic-Deterministic Approach For Active Fault Diagnosis Using Scenario Optimization</b> , IFAC WC 2014		2
7.	J.K. Scott, G.R. Marseglia, L. Magni, R.D. Braatz, D.M. Raimondo, <b>A Hybrid Stochastic-Deterministic Input Design Method for Active Fault Diagnosis</b> , CDC 2013	3	6
8.	D.M. Raimondo, G.R. Marseglia, R.D. Braatz, J.K. Scott, <b>Fault-Tolerant Model Predictive Control with Active Fault Isolation</b> , SysTol 2013		11
9.	D.M. Raimondo, R.D. Braatz, J.K. Scott, <b>Active Fault Diagnosis using Moving Horizon Input Design</b> , ECC 2013	6	10
10.	N. Kariotoglou, S. Summers, D. M. Raimondo, J. Lygeros, <b>Hierarchical task allocation for multi-agent systems encoded by stochastic reachability specifications</b> , ECC 2013	1	1
11.	K.K.K. Kim, D. M. Raimondo, R. D. Braatz, <b>Optimum Input Design for Fault Detection and Diagnosis: Model-based Prediction and Statistical Distance Measures</b> , ECC 2013	1	3
12.	J. K. Scott, R. Findeisen, R. D. Braatz, D. M. Raimondo, <b>Design of</b>		

<b>Active Inputs for Set-Based Fault Diagnosis, ACC 2013</b>	4	19
13. S.M. Huck, N. Kariotoglou, S. Summers, D.M. Raimondo, J. Lygeros, <b>Design of importance-map based randomized patrolling strategies</b> , Complexity in Engineering (COMPENG), 2012, pp. 1—6, 2012		6
14. D.M. Raimondo, O. Huber, M. Schulze Darup, M. Mönnigmann, M. Morari, <b>Constrained time-optimal control for nonlinear systems: a fast explicit approximation</b> , NMPC'12, 2012		2
15. N. Kariotoglou, D. M. Raimondo, S. Summers, and J. Lygeros, <b>A stochastic reachability framework for autonomous surveillance with pan-tilt-zoom cameras</b> , CDC 2011, pp. 1411--1416, 2011	1	7
16. D. M. Raimondo, N. Kariotoglou, S. Summers, and J. Lygeros, <b>Probabilistic certification of pan-tilt-zoom camera surveillance systems</b> , CDC 2011, pp. 2064—2069, 2011	4	13
17. D. Axehill, T. Besselmann, D. M. Raimondo and M. Morari, <b>Suboptimal Explicit Hybrid MPC via Branch and Bound</b> , IFAC WC 2011, Milano	2	3
18. D. M. Raimondo, S. Rivero, C. N. Jones and M. Morari, <b>A robust explicit nonlinear MPC controller with input-to-state stability guarantees</b> , IFAC WC 2011, Milano	2	7
19. M. Rubagotti, D. M. Raimondo, C. N. Jones, L. Magni, A. Ferrara and M. Morari, <b>A Nonlinear Model Predictive Control Scheme with Multirate Integral Sliding Mode</b> , 8th IFAC Symposium on Nonlinear Control Systems, Bologna, September 2010		2
20. S. Summers, D. M. Raimondo, C.N. Jones, J. Lygeros, M. Morari, <b>Fast explicit nonlinear model predictive control via multiresolution function approximation with guaranteed stability</b> , 8th IFAC Symposium on Nonlinear Control Systems, Bologna, September 2010	1	12
21. F. Tedesco, D. M. Raimondo, A. Casavola, J. Lygeros, <b>Distributed collision avoidance for interacting vehicles: a command governor approach</b> , 2nd IFAC Workshop on Estimation and Control of Networked Systems (NecSys'10), September 2010, Annecy, France	4	10
22. D. M. Raimondo, S. Gasparella, D. Sturzenegger, J. Lygeros, M. Morari, <b>A tracking algorithm for PTZ cameras</b> , 2nd IFAC Workshop on Estimation and Control of Networked Systems (NecSys'10), September 2010, Annecy, France	2	9
23. M. N. Zeilinger, C. N. Jones, D. M. Raimondo, M. Morari, <b>Real-time MPC - Stability through Robust MPC design</b> , CDC'09	8	20
24. D. M. Raimondo, P. Hokayem, J. Lygeros, M. Morari, <b>An iterative decentralized MPC algorithm for large-scale nonlinear systems</b> , 1st IFAC Workshop on Estimation and Control of Networked Systems (NecSys'09), 24-26 September 2009, Venice, Italy	4	7
25. M. Rubagotti, D. M. Raimondo, A. Ferrara and L. Magni, <b>Robust model predictive control of continuous-time sampled-data nonlinear systems with integral sliding mode</b> , European Control Conference 2009, ECC'09, 23-26 August 2009, Budapest, Hungary		5
26. D. Limon, T. Alamo, D. M. Raimondo, J. M. Bravo, D. Munoz de la Pena and E. F. Camacho, <b>Input-to-State Stability: an unifying</b>		

<p><b>framework for Robust Model Predictive Control</b>, International Workshop on Assessment and future directions of NMPC (Keynote), September 5-9, 2008, Pavia, Italy</p>		
<p>27. L. Magni, D. M. Raimondo, S. Rivero, C. Dalla Man, G. De Nicolao and C. Cobelli <b>Nonlinear model predictive control of glucose concentration for Type-1 diabetic patients</b>, International Workshop on Assessment and future directions of NMPC, September 5-9, 2008, Pavia, Italy</p>		
<p>28. M. Rubagotti, D. M. Raimondo, A. Ferrara and L. Magni, <b>Robust nonlinear MPC with integral sliding mode for systems with matched disturbances</b>, International Workshop on Assessment and future directions of NMPC, September 5-9, 2008, Pavia, Italy</p>		
<p>29. L. Magni, D. M. Raimondo, C. Dalla Man, G. De Nicolao, B. Kovatchev and Claudio Cobelli, <b>Model Predictive Control of glucose concentration in subjects with type 1 diabetes: an in silico trial</b>, 17th IFAC World Congress July 6-11, 2008, Seoul, Korea</p>		16
<p>30. B. Kovatchev, D. M. Raimondo, M. Breton, S. Patek and C. Cobelli, <b>In Silico Testing and in Vivo Experiments with Closed-Loop Control of Blood Glucose in Diabetes</b>, 17th IFAC World Congress July 6-11, 2008, Seoul, Korea</p>		4
<p>31. G. Pin, L. Magni, T. Parisini, D. M. Raimondo, <b>Robust Receding-Horizon Control of Nonlinear Systems with State Dependent Uncertainties: an Input-to-State Stability Approach</b>, 2008 American Control Conference, June 11-13, 2008, Westin Seattle Hotel, Seattle, Washington, USA</p>	8	10
<p>32. D. M. Raimondo, L. Magni, G. De Nicolao, C. Dalla Man and C. Cobelli, <b>Assessing the effect of sc insulin absorption delay on closed-loop glucose control</b>, 27th Workshop of the AIDPIT Study Group, 2nd European Diabetes Technology and Transplantation Meeting (EuDTT), Innsbruck-Igls / Austria, Jan 27-29, 2008</p>		
<p>33. D. M. Raimondo, T. Alamo, D. Limon and E. F. Camacho, <b>Towards the practical implementation of Min-Max Nonlinear Model Predictive Control</b>, 46<sup>th</sup> IEEE Conference on Decision and Control, New Orleans, LA, USA, December 12-14 2007</p>	5	11
<p>34. D. M. Raimondo, L. Magni, C. Dalla Man, G. De Nicolao, B. Kovatchev and C. Cobelli, <b>Closed-loop control of glucose concentration in subjects with type 1 diabetes</b>, Diabetes Technology Society, Seventh Annual Meeting, San Francisco Airport Hyatt Regency Hotel, October 25-27, 2007</p>		
<p>35. D. M. Raimondo, L. Magni and R. Scattolini, <b>Decentralized Open-Loop MPC of Nonlinear Systems: an Input-to-State Stability Approach</b>, European Control Conference 2007, Kos, Greece 2-5 July 2007</p>		
<p>36. D. M. Raimondo, L. Magni and R. Scattolini, <b>A Decentralized MPC Algorithm for Nonlinear Systems</b>, NOLCOS 2007, Pretoria, South Africa, August 2007</p>		
<p>37. D. M. Raimondo, D. Limon, M. Lazar, L. Magni and E. F. Camacho, <b>Regional Input-to-State Stability of Min-Max Model Predictive Control</b>, NOLCOS 2007, Pretoria, South Africa, August 2007</p>		



38. L. Magni, C. Dalla Man, D. M. Raimondo, G. De Nicolao, B. Kovatchev and C. Cobelli, <b>NMPC of glucose concentration in subjects with type 1 diabetes, Nonlinear Model Based Control</b> - Software and applications (NMPC - SOFAP, 2007), April 19-20, Loughborough, UK, 2007		
39. L. Magni, D. M. Raimondo and R. Scattolini, <b>Input-to-state Stability for Nonlinear Model Predictive Control</b> , 45th IEEE Conference on Decision and Control, San Diego, California USA, December 13-15, 2006	2	5
40. D. M. Raimondo and L. Magni, <b>A Robust Model Predictive Control Algorithm for Nonlinear Systems with a Low Computational Burden</b> , IFAC Workshop on Nonlinear Model Predictive Control for Fast Systems 2006, Grenoble, France, Oct 9-11, 2006		7

<b>Submitted</b>
1. J.K. Scott, D.M. Raimondo, G.R. Marseglia, R.D. Braatz, <b>Constrained Zonotopes: A New Tool for Set-Based Estimation and Fault Detection</b> , Automatica, provisionally accepted as Regular Paper
2. G.R. Marseglia, D.M. Raimondo, <b>Active fault diagnosis: a multi-parametric approach</b> , submitted to Automatica
3. M. Torchio, L. Magni, B. Gopaluni, R.D. Braatz, and D.M. Raimondo, <b>A Finite Volume Model of Li-ion Batteries Suitable for Advanced Battery Management Systems</b> , submitted to Journal of Electrochemical Society
4. M. Torchio, C. Ocampo-Martinez, L. Magni, M. Serra, R.D. Braatz and D.M. Raimondo, <b>Fast Model Predictive Control for Hydrogen Outflow Regulation in Ethanol Steam Reformers</b> , submitted to ACC 2016
5. M. Torchio, L. Magni, R.D. Braatz, and D.M. Raimondo, <b>Optimal Health-aware Charging Protocol for Lithium-ion Batteries: A Fast Model Predictive Control Approach</b> , submitted to DYCOPS-CAB 2016
6. D.M. Raimondo, G.R. Marseglia, R.D. Braatz, J.K. Scott, <b>Closed-Loop Input Design for Guaranteed Fault Diagnosis using Set-Valued Observers</b> , in preparation
7. L.C. Foguth, R.D. Braatz, D.M. Raimondo, <b>Active fault diagnosis for hybrid systems</b> , in preparation

Davide M. Raimondo is also coauthor of the following deliverables of the European Project Feednetback FP7 ICT-2007.3.7 Project reference: 223866

1. Deliverable D6.1: **Integration of control, communication, computation, complexity and energy considerations in a coherent design strategy**, Davide Raimondo, Peter Hokayem, Stephan Huck, John Lygeros, Manfred Morari, Alireza Farhadi, Carlos Canudas de Wit, Sandro Zampieri, Luca Schenato, Angelo Cenedese, Paul Smyth, Jacek Czyz, Giambattista Gennari
2. Deliverable 09.11: **Exploitation Plan**, Costis Kompis, Prateek Sureka, Stephan Huck, Davide Raimondo, Francisco Rubio, Carlo Fischione, Tobias Oechtering, Angelo Cenedese, Luca Schenato, Olivier DeBardonneche, Giambattista Gennari, Piero Donaggio, Paul Smyth, Jacek Czyz

Sincerely,

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