Davide M. Raimondo
Born: 07-11-1981 in Pavia (Italy)
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Languages: *Italian*: mother tongue. *English*: proficient. *Spanish*: fluent.
            German: basic knowledge. *Serbo-Croatian:* basic knowledge

EDUCATION

Nov. 05 – Nov. 08	UNIVERSITY OF PAVIA **Ph.D. in electronics, computer science and electrical engineering** Thesis title: *Nonlinear Model Predictive Control: Stability, Robustness and Applications.* Advisor: Prof. Lalo Magni (Ph.D. defended on 16-01-2009).	Pavia *Italy*
Oct. 03 – Jul. 05	UNIVERSITY OF PAVIA **M.Sc.** in Automatic Control Engineering. 110/110 cum laude.	Pavia *Italy*
Oct. 00 – Sep. 03	UNIVERSITY OF PAVIA **B.Sc.** in Computer Science Engineering. 110/110 cum laude.	Pavia *Italy*
Nov. 00 – Jul. 05	ALMO COLLEGIO BORROMEO **Student**. Almo Collegio Borromeo is recognized by the Italian Ministry of Education, Universities and Research as a "Highly qualified cultural institute".	Pavia *Italy*
Nov. 00 – Nov. 05	INSTITUTE FOR ADVANCED STUDY OF PAVIA (IUSS) **Student**. IUSS-Pavia is recognized as "Scuola Superiore ad ordinamento speciale" in virtue of the excellent quality of the activities carried out. It has the same status as the Scuola Normale and the Scuola Sant'Anna in Pisa, and the SISSA in Trieste.	Pavia *Italy*

ACADEMIC AND RESEARCH APPOINTMENTS

Dec 21 –	UNIVERSITY OF PAVIA **Full Professor**, Identification and Control of Dynamical Systems (ICDS) Laboratory, Dept. of Electrical, Computer and Biomedical Engineering.	Pavia *Italy*
May 15 –	UNIVERSITY OF PAVIA **Associate Professor**, Identification and Control of Dynamical Systems (ICDS) Laboratory, Dept. of Electrical, Computer and Biomedical Engineering.	Pavia *Italy*
Jan. 13 –	UNIVERSITY OF PAVIA **Head** of the educational Process Control Laboratory, Dept. of Electrical, Computer and Biomedical Engineering, http://conpro.unipv.it/	Pavia *Italy*
Jul. 18 – Sep. 18	UNIVERSITY OF KONSTANZ **Visiting Professor**, Department of Mathematics and Statistics.	Konstanz *Germany*
Oct. 17 – Feb. 18	UNIVERSITY OF KONSTANZ **Visiting Professor**, Department of Mathematics and Statistics.	Konstanz *Germany*
Dec. 10 – May 15	UNIVERSITY OF PAVIA **Assistant Professor** (tenured 29/12/2013), ICDS Laboratory, Dept. of Electrical, Computer and Biomedical Engineering.	Pavia *Italy*
Mar. 15 – Apr. 15 Mar. 14 – Apr. 14	VIENNA UNIVERSITY OF TECHNOLOGY (TU WIEN) **Visiting Professor**, Computer Engineering PhD School.	Vienna *Austria*

Nov. 08 – Dec. 10	SWISS FEDERAL INSTITUTE OF TECHNOLOGY (ETHZ)	Zürich
	Postdoc at the Automatic Control Laboratory	*Switzerland*
	Dept. of Information Technology and Electrical Engineering.	

RESEARCH STAYS

Oct. 15 – Nov. 15	MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)	Cambridge
Sep. 14 – Feb. 15	**Visiting scholar**	*USA*
Aug. 13 – Sep. 13	Prof. Braatz group	
Mar. 12 – Jun. 12	Department of Chemical Engineering.	
Oct. 06 – May 07	UNIVERSITY OF SEVILLE	Sevilla
	Academic Guest in the Dept. of Automation and System Engineering.	*Spain*

AWARDS

Automatica Paper Prize Award 2014-2016 for *Constrained zonotopes: A new tool for set-based estimation and fault detection*, J.K. Scott, D.M. Raimondo, G.R. Marseglia, R.D. Braatz, Automatica, 69, 126-136, 2016.

QUALIFICATIONS

Oct. 2018	**Italian scientific habilitation for the position of Full Professor**, section 09/G1 Automatica. Period of validity: 2018 - 2024.
Oct. 2014	Italian scientific habilitation for the position of Associate Professor, section 09/G1 Automatica.
Nov. 2005	Professional practice exam ("esame di stato") for engineering license passed in Pavia, Italy.

MEMBERSHIPS

2019 -	IEEE Membership, IEEE Control Systems Society Membership**.**

RESEARCH INTERESTS

Theory: control, optimization, fault detection and isolation. *Applications:* energy, robotics, logistics, medical.

BIBLIOMETRIC PROFILE

Davide M. Raimondo has an h index of 25 (Scopus) - 29 (Google Scholar) and a number of citations equal to 2615 (Scopus) - 4170 (Google Scholar). He is editor of one book, author or co-author of 34 refereed journals, 4 book chapters, 55 conference proceedings and 1 patent. Main topics: optimization-based control, fast, cooperative and distributed control, fault diagnosis, battery management systems, autonomous surveillance, control of glycaemia.

SOFTWARE

Promoter and co-author of the Li-ion Simulation Battery (LIONSIMBA) toolbox, official website http://sisdin.unipv.it/labsisdin/lionsimba.php. Co-author of the Battery Optimal Layer Design (BOLD) toolbox https://zenodo.org/record/1241420#.XF2QxlxKjb1.

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

1 Postdoc, **5 Ph.D.** students (2 co-advised), **4 graduated PhD** students, **>30 master** theses, **>50 bachelor** theses and **5 internships** (see http://sisdin.unipv.it/labsisdin/raimondo/raimondoST.php for details).

TEACHING ACTIVITIES

Experience in several countries: Austria, Colombia, Germany, Italy, Switzerland, number of students ranging from 5 to 170).

PhD courses

2020	**Lecturer**, Constrained Zonotopes for state estimation and fault detection, University of Seville, Spain

2018	**Lecturer**, Predictive Control, Universidades Autónomas de Occidente, Bucaramanga, Manizales, Colombia
2014 and 2015	**Lecturer**, Model Predictive Control (Special Topics in Cyber-Physical Systems), Computer Engineering PhD School, TU Wien, Austria

Master courses

2016 –	**Lecturer**, Advanced Automation and Control, University of Pavia, Italy
2017 – 2018	**Lecturer**, Optimal Control of ODEs, University of Konstanz, Germany
2014	**Lecturer**, Moving Horizon Estimation (Hybrid Systems Course), TU Wien, Austria
2009 – 2011	**Teaching assistant**, Model Predictive Control, ETHZ, Switzerland

Bachelor courses

2011 –	**Lecturer**, Basics of Automatic Control, University of Pavia, Italy
2006 – 2007	**Lecturer**, Introduction to systems analysis, University of Pavia, Italy
2006 – 2007	**Tutor** of computer programming (Java), University of Pavia, Italy

INSTITUTIONAL RESPONSIBILITIES (University of Pavia, Italy)

2017 –	**Member** of the Scientific Board of the PhD program in Electronics, Computer science and Electrical Engineering
2016 –	**Coordinator** of the Automatica Tutoring Project, Faculty of Engineering
2018	**Member and secretary** of the committee for the final evaluation of the PhD candidates in Electronics, Computer Science and Electrical Engineering
2015 – 2016	**Coordinator** of promotional activities for Automatica
2012 – 2016	**Committee member**, qualification to the profession of Computer Science Engineer

INVITED SEMINARS, PARTICIPATION AT INTERNATIONAL CONFERENCES

- \>20 presentations held at international conferences (ACC, CDC, Diabetes Technology Society Meeting, ECC, IFAC NecSys, IFAC NOLCOS, IFAC WC, MTNS, NMPC, SYSTOL)
- \>20 invited seminars at universities and research centers (ABB Corporate Research Center, Bochum Univ., Boston Univ., EPFL, ETH, Federal Univ. of Minas Gerais, IIT Italy, Imperial College, Magdeburg Univ., MIT, Mitsubishi Electric Research Labs, TU Braunschweig, TU Wien, UC Berkeley)

ORGANISATION OF SCIENTIFIC MEETINGS

2010 and 2007	**Organizer** of the invited sessions Nonlinear MPC (2010, Bologna Italy) and New Development in NMPC (2007, Pretoria, South Africa) for the IFAC Symposium on Nonlinear Control Systems
2008	**Co-chair** of the International Workshop on Assessment and Future Direction of Nonlinear Model Predictive Control, Pavia, Italy

EDITORIAL ACTIVITIES

2020 –	**Subject editor** for the journal Automatica
2020	**International Program Committee member** of IEEE CDC '20
2021, 2020 and 2017	**Evaluator** of 3 research proposals, Czech Science Foundation
2019 –	**Subject editor** for the journal IEEE Transactions on Control Systems Technology
2016 – 2021	**Conference Editorial Board member** of the IEEE Control Systems Society
2015 – 2018	**Subject editor** for the journal Optimal Control Applications and Methods
2014 – 2019	**Conference Editorial Board member** of the European Control Conference
2012 –	**International Program Committee member** of the IFAC NMPC Conference

LIST OF GRANTS

1. Research contract with ENI S.p.A.[1], located in San Donato Milanese, Piazza Ezio Vanoni, Role: **Principal Investigator**. Subject of the contract: Modeling, forecasting and optimization of optimal bidding strategies in the free electricity market. Duration: 29 months (2020-2022). Amount: 110K€+VAT.

2. Research contract with ENI S.p.A. Role: **Principal Investigator**. Subject of the contract: forecast of energy production by a wind farm in Italy. Duration: 18 months (2020-2021). Amount: 79K€+VAT.

3. Research Project of National Interest – PRIN (Italian project involving several universities). Title: Monitoring and Control Underpinning the Energy-Aware Factory of the Future: Novel Methodologies and Industrial Validation. Role: **Principal Investigator** for the Univ. of Pavia unit. Amount: 130K€ (101K€ by the Ministry of Education, University and Research, 29K€ by the Univ. of Pavia). The total funding of the project is 917K€. Duration: 3 years (2019-2022).

4. Grant from the Lombardy region for actions to enhance human capital and strengthen three new ENEA research labs. Role: **Principal Investigator**. Project title: Integration of electric vehicles into smart grids. The grant was used to fund a PhD position. The candidate is working in collaboration with the new ENEA lab for smart cities at Kilometro Rosso, Bergamo. Amount: 61.5K€ (48K€ Lombardy Region, 13.5K€ Univ. of Pavia). Duration: 3 years (2019-2022).

5. Research contract with LPE S.p.A, located in Baranzate, via Falzarego 8. Role: Principal Investigator. Subject of the contract: modeling and control of epitaxial reactors. Duration: 6 months (2019). Amount: 16K€+VAT.

6. Research contract with Stelar S.R.L., located in Mede (PV), Via E. Fermi 4. Role: **Principal Investigator**. Research activity regarding the characterization, modelling and design of a software for the simulation of the magnetic field control loop for Fast Field Cycling (FFC) NMR. Duration: 2 years (2016- 2018). Amount: 60K€ + VAT.

7. Project Pavia-Boston. Promoted by the Pro-Rector in charge of the Third Mission, Univ. of Pavia. Role: **recipient/reference professor** for research stays at MIT and for visiting professors and students at Univ. of Pavia. Incoming professors: R.D. Braatz, G. Stephanopoulos (MIT), C. Belta (BU). Period: 2014-2019. Amount: 22K€.

Total amount of secured funding: 478.5K€.

Prof. Raimondo was also significantly involved in the EU project SEMI40 Power Semiconductor and Electronics Manufacturing 4.0 H2020-EU.2.1.1.7, ECSEL. A portion of the received funds was used for 2 Ph.D. positions. Prof. Raimondo was the advisor of one of the 2 students. The project had an overall budget of around 62 M€ (425K€ for the Univ. of Pavia) of which 12.2M€ of EU contribution (170K€ for the University of Pavia). SEMI40 was one of the largest Industry 4.0 projects in the EU. Duration: 3 years (2016-2019).

PUBLICATIONS AND PATENTS[2]

Books
1. L. Magni, D.M. Raimondo, F. Allgower (EDS), **Nonlinear model predictive control: Towards new challenging applications**, Springer Lecture Notes in Control and Information Sciences series, vol. 384, 2009, citations: 242 (S.G.)

International Journals
1. G. Saccani, G. Ciaramella, D.M. Raimondo, **A computationally efficient implementation of a battery pack electrochemical model using waveform relaxation**, Journal of Energy Storage, accepted

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[1] Italian multinational oil and gas company. It is considered one of the seven "supermajor" oil companies in the world.

[2] In the following I.F. stands for the Impact factor of the journal, SC. for SCOPUS and S.G. for Scholar Google.

2.	B.S. Rego, S.G. Vrachimis, M.M. Polycarpou, G.V. Raffo and D.M. Raimondo, **State estimation and leakage detection of water distribution systems using constrained zonotopes,** IEEE TCST, accepted
3.	B.S. Rego, J.K. Scott, D.M. Raimondo, G.V. Raffo, **Set-valued state estimation based on constrained zonotopes of nonlinear discrete-time systems with state equality constraints,** Automatica 129, 109638, 2021, I.F. 5.944
4.	M. Rubagotti, G. P. Incremona, D. M. Raimondo, A. Ferrara, **Constrained Nonlinear Discrete-Time Sliding Mode Control Based on a Receding Horizon Approach,** IEEE Transactions on Automatic Control, 2020, doi: 10.1109/TAC.2020.3024349, I.F. 5.625, citations: 2 (SC.), 2 (S.G.)
5.	A. Pozzi, M. Zambelli, A. Ferrara, D.M. Raimondo, **Balancing-Aware Charging Strategy For Series-Connected Lithium-Ion Cells: A Nonlinear Model Predictive Control Approach**, IEEE Transactions on Control Systems Technology, 28(5), 1862-1877, 2020, I.F. 5.312, citations: 8 (S.G.)
6.	A. Pozzi, M. Torchio, R.D. Braatz, D.M. Raimondo, **Optimal Charging of an Electric Vehicle Battery Pack: a Real-Time Sensitivity-Based MPC,** Journal of Power Sources, 461, 228133, 2020, I.F. 8.247, citations: 4 (SC.), 10 (S.G.)
7.	B.S. Rego, G.V. Raffo, J.K. Scott, D.M. Raimondo **Guaranteed methods based on constrained zonotopes for set-valued state estimation of nonlinear discrete-time systems,** Automatica, 111, 108614, 2020, I.F. 5.944, citations: 6 (SC.), 16 (S.G.)
8.	F. Boem, A.J. Gallo, D.M. Raimondo and T. Parisini, **Distributed Fault-Tolerant Control of Large-Scale Systems: an Active Fault Diagnosis Approach,** IEEE Transactions on Control of Network Systems, 7(1),8700304, pp. 288-301, 2020, I.F. 3.467, citations: 9 (SC.), 18 (S.G.)
9.	G. Galuppini, R. Rolfi, C. Toffanin, D.M. Raimondo, Y. Xia, G. Ferrante, L. Magni, **Towards a Model-Based Field-Frequency Lock for NMR: Experimental Validation,** Applied Magnetic Resonance, 1-23, 2019, I.F. 0.864, citations: 3 (S.G.)
10.	I.D. Campbell, K. Gopalakrishnan, M. Marinescu, M. Torchio, G.J. Offer and D.M. Raimondo, **Modelled Optimal Layer Configuration of Lithium-ion Cells: Fast Charging, Plating Avoidance & Common Module Design for Electric Vehicles,** Journal of Energy Storage, 22, 228-238, 2019, I.F. 6.583, citations: 22 (SC.), 27 citations (S.G.)
11.	A. Pozzi, G. Ciaramella, S. Volkwein, D.M. Raimondo, **Optimal design of experiments for a lithium-ion cell: parameters identification of an isothermal single particle model with electrolyte dynamics,** Industrial & Engineering Chemistry Research, 58 (3), 1286–1299, 2019, I.F. 3.573, citations: 15 (SC.), 20 (S.G.)
12.	G. Galuppini, L. Magni, D.M. Raimondo, **Model Predictive Control of Systems with Actuators Subject to Dead-Zone and Saturation: Robustness Analysis and Experimental Validation,** Control Engineering Practice, 78, 56–64, 2018, I.F. 3.475, citations: 19 (SC.), 21 (S.G.)
13.	M. Torchio, L. Magni, R.D. Braatz, D.M. Raimondo, **Design of Piecewise Affine and Linear Time Varying based Model Predictive Control Strategies for Advanced Battery Management Systems**, Journal of Electrochemical Society, 164 (4), A949-A959, 2017, I.F. 3.721, citations: 12 (SC.), 19 (S.G.)
14.	G.R. Marseglia, D.M. Raimondo, **Active fault diagnosis: a multi-parametric approach,** Automatica, 79, 223-230, 2017, I.F. 5.944, citations: 30 (SC.), 41 (S.G.)
15.	D.M. Raimondo, G.R, Marseglia, R.D. Braatz, J.K. Scott, **Closed-Loop Input Design for Guaranteed Fault Diagnosis using Set-Valued Observers,** Automatica, 74, 107-117, 2016, I.F. 5.944, citations: 48 (SC.), 57 (S.G.)
16.	M. Torchio, L. Magni, B. Gopaluni, R.D. Braatz, and D.M. Raimondo, **LIONSIMBA - a Matlab framework based on a finite volume model suitable for Li-ion battery design, simulation, and control,** Journal of Electrochemical Society, 163 (7), A1192-A1205, 2016, I.F. 3.721, citations: 66 (SC.), 95 (S.G.)
17.	J.K. Scott, D.M. Raimondo, G.R. Marseglia, R.D. Braatz, **Constrained Zonotopes: A New Tool for Set-Based Estimation and Fault Detection,** Automatica, 69, 126-136, 2016, I.F. 5.944, citations: 73 (SC.), 119 (S.G.)
18.	D.M. Raimondo, M. Rubagotti, C.N. Jones, L. Magni, A. Ferrara, M. Morari, **Multirate sliding mode disturbance compensation for model predictive control,** International Journal of Robust and Nonlinear Control, 25(16), 2984-3003, 2015, I.F. 3.503, citations: 16 (SC.), 25 (S.G.)
19.	N. Kariotoglou, D.M. Raimondo, S. Summers, J. Lygeros, **Multi-Agent Autonomous Surveillance: A Framework Based on Stochastic Reachability and Hierarchical Task Allocation,** Journal of Dynamic Systems, Measurement, and Control, 137(3), 031008, 2015, I.F. 1.83, citations: 7 (SC.), 17 (S.G.)

20. 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, **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,** Diabetes Technology and Theurapeutics**,** 16 (10), 613-622, 2014, I.F. 4.403, citations: 31 (SC.), 48 (S.G.)

21. 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, **Multicenter closed-loop/hybrid meal bolus insulin delivery with type 1 diabetes,** Diabetes Technology and Theurapeutics**,** 16 (10), 623–632, 2014, I.F. 4.403, citations: 35 (SC.)

22. 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, **Modification of Crystal Shape through Deep Temperature Cycling**, Industrial & Engineering Chemistry Research, 53(13), 5325-5336, 2014, I.F. 3.573, citations: 45 (SC.), 59 (S.G.)

23. J. K. Scott, R. Findeisen, R. D. Braatz, D. M. Raimondo, **Input Design for Guaranteed Fault Diagnosis Using Zonotopes,** Automatica, 50(6),1580-1589, 2014, I.F. 5.944, citations: 91 (SC.), 114 (S.G.)

24. M. N. Zeilinger, D. M. Raimondo, A. Domahidi, M. Morari, C. N. Jones, **On Real-time Robust Model Predictive Control**, Automatica, 50(3), 683-694, 2014, I.F. 5.944, citations: 71 (SC.), 108 (S.G.)

25. D. Axehill, T. Besselmann, D. M. Raimondo, M. Morari, **A Parametric Branch and Bound Approach to Suboptimal Explicit Hybrid MPC**, Automatica, 50(1), 240-246, 2014, I.F. 5.944, citations: 34 (SC.), 52 (S.G.)

26. F. Tedesco, D. M. Raimondo, A. Casavola, **Collision avoidance command governor for multi-vehicle unmanned systems,** International Journal of Robust and Nonlinear Control, 24(16), 2309–2330, 2014, I.F. 3.503, citations: 11 (SC.), 20 (S.G.)

27. M. Rubagotti, D.M. Raimondo, A. Ferrara and L. Magni, **Robust model predictive control with integral sliding mode in continuous-time sampled-data nonlinear systems**. IEEE Transactions on Automatic Control, 56(3), 556-570, 2011, I.F. 5.625, citations: 118 (SC.), 150 (S.G.)

28. L. Magni, D. M. Raimondo, C. Dalla Man, G. De Nicolao, B. Kovatchev, C. Cobelli, **Model Predictive Control of glucose concentration in type I diabetic patients: an in silico trial**, Biomedical Signal Processing and Control, 4(4), 338-346, 2009 (invited contribution), I.F. 3.88, citations: 143 (SC.), 191 (S.G.)

29. G. Pin, D. M. Raimondo, L. Magni, T. Parisini, **Robust Model Predictive Control of Nonlinear Systems with Bounded and State-Dependent Uncertainties**, IEEE Transactions on Automatic Control, 54(7), 1681-1687, 2009, I.F. 5.625, citations: 69 (SC.), 106 (S.G.)

30. D. M. Raimondo, D. Limon, M. Lazar, L. Magni and E. F. Camacho, **Min-max model predictive control of nonlinear systems: a unifying overview on stability**, European Journal of Control, 15(1), 5-21, 2009, I.F. 2.395, citations: 121 (SC.), 190 (S.G.)

31. L. Magni, D. M. Raimondo, C. Dalla Man, M. Breton, S. Patek, G. de Nicolao, C. Cobelli, and B. Kovatchev. **Evaluating the efficacy of closed-loop glucose regulation via control-variability grid analysis (CVGA).** Journal of Diabetes Science and Technology, 2(4), 630-635, 2008, citations: 152 (SC.), 202 (S.G.)

32. E. Franco, L. Magni, T. Parisini, M. M. Polycarpou and D. M. Raimondo, **Cooperative Constrained Control of Distributed Agents with Nonlinear Dynamics and Delayed Information Exchange: a Stabilizing Receding Horizon Approach**, IEEE Transactions on Automatic Control, 53(1), 324-338, 2008, I.F. 5.625, citations: 132 (SC.), 184 (S.G.)

33. L. Magni, D. M. Raimondo, L. Bossi, C. Dalla Man, G. De Nicolao, B. Kovatchev and Claudio Cobelli, **Model Predictive Control of type 1 diabetes: an in silico trial**, Journal of Diabetes Science and Technology, 1(6), 804-812, 2007, citations: 229 (SC.), 320 (S.G.)

34. D.M. Raimondo, L. Magni and R. Scattolini, **Decentralized MPC of Nonlinear Systems: an Input-to-State Stability Approach**, International Journal of Robust and Nonlinear Control, 17(17), 1651-1667, 2007, I.F. 3.503, citations: 98 (SC.), 152 (S.G.)

35. C. Dalla Man, D. M. Raimondo, R. A. Rizza, C. Cobelli, **GIM, Simulation Software of Meal Glucose–Insulin Model**, Journal of Diabetes Science and Technology, 1(3), 323-330, 2007, citations: 169 (SC.), 293 (S.G.)

36. L. Magni, D. M. Raimondo and R. Scattolini, **Regional Input-to-state Stability for Nonlinear Model Predictive Control**, IEEE Transactions on Automatic Control, 51(9), 1548-1553, 2006, I.F. 5.625, citations: 130 (SC.), 182 (S.G.)

Patent Applications

1. Magni L., G. De Nicolao, D. M. Raimondo, C. Dalla Man and C. Cobelli **Predictive Control Based System And Method For Control Of Insulin Delivery In Diabetes Using Glucose Sensing,** US Patent App. 12/740,275, 2010, citations: 68 (S.G.)

Book Chapters

1. F. Tedesco, D. M. Raimondo, A. Casavola, **A distributed reference management scheme in presence of non-convex constraints: an MPC based approach,** Intelligent Systems, Control and Automation: Science and Engineering 69, 243-257, 2014, citations: 2 (SC.), 3 (S.G.)

2. D. M. Raimondo, S. Riverso, S. Summers, C.N. Jones, J. Lygeros, M. Morari, **A set theoretic method for verifying feasibility of a fast explicit nonlinear Model Predictive Controller**, Lecture Notes in Control and Information Sciences, 417, 289-311, 2012, citations: 7 (SC.), 14 (S.G.)

3. D. M. Raimondo, D. Limon, T. Alamo and L. Magni, **Robust Model Predictive Control Algorithms for Nonlinear Systems: an Input-to-State Stability Approach,** Model Predictive Control, Tao Zheng (Ed.), ISBN: 978-953-307-102-2, Sciyo, 2010, citations 11 (S.G.)

4. D. Limon, T. Alamo, D. M. Raimondo, J. M. Bravo, D. Munoz de la Pena, A. Ferramosca and E. F. Camacho, **Input-to-State Stability: an unifying framework for Robust Model Predictive Control**, Nonlinear Model Predictive Control, LNCIS 384, pp. 1-26, 2009, citations: 125 (SC.), 220 (S.G.)

International Conferences

1. B. Zoghdar-Moghadam-Shahrekohne, A. Pozzi, D.M. Raimondo, **SOS-based Stability Region Enlargement of Bilinear Power Converters through Model Predictive Control**, MED21, 2021

2. D. Locatelli, B.S. Rego, G.V. Raffo, D.M. Raimondo, **Interval state estimation based on constraint propagation for a lithium-ion cell using an equivalent circuit model**, ADCHEM 2021

3. A. Pozzi, S. Bae, Y. Choi, F. Borrelli, D.M. Raimondo, S. Moura, **Ecological Velocity Planning through Signalized Intersections: A Deep Reinforcement Learning Approach**, CDC 2020

4. S. Park, A. Pozzi, M. Whitmeyer, D. M. Raimondo, W.T. Joe, S. Moura, **Reinforcement Learning-based Fast Charging Control Strategy for Li-ion Batteries**, CCTA 2020, citations: 2 (SC.), 6 (S.G.)

5. A. Pozzi, X. Xie, D.M. Raimondo, R. Schenkendorf, **Global Sensitivity Methods for Optimal Experimental Design in Lithium-ion Battery Context,** IFAC 2020, citations: 1 (S.G.)

6. B.S. Rego, D. M. Raimondo, G.V. Raffo, **Set-based state estimation and fault diagnosis of linear discrete-time descriptor systems using constrained zonotopes**, IFAC 2020

7. Mosca, C.I. Vasile, C. Belta, D.M. Raimondo, **Multi-robot routing and scheduling with temporal logic and synchronization constraints**, IEEE International Conference on Control and Robot (ICCR) 2019

8. A. Pozzi, G. Ciaramella, K. Gopalakrishnan, S. Volkwein, D.M. Raimondo, **Optimal design of experiment for parameter estimation of a Single Particle Model for lithium-ion batteries**, CDC 2018, citations: 2 (SC.), 5 (S.G.)

9. B. Rego, D. M. Raimondo, G. V. Raffo, **Path Tracking Control with State Estimation based on Constrained Zonotopes for Aerial Load Transportation**, CDC 2018, citations: 1 (SC.), 1 (S.G.)

10. A. Mosca, A. Pozzi, D.M. Raimondo, **Battery ageing-aware stochastic management of power networks in islanded mode**, International Conference on System Theory, Control and Computing 2018, citations: 1 (SC.), 2 (S.G.)

11. A. Pozzi, M. Torchio, D.M. Raimondo, **Assessing the performance of model-based energy saving charging strategies in Li-ion cells,** CCTA 2018, citations: 3 (SC.), 7 (S.G.)

12. A. Pozzi, M. Torchio and D.M. Raimondo, **Film growth minimization in a Li-ion cell: a Pseudo Two Dimensional model-based optimal charging approach**, ECC '18, citations: 10 (SC.), 14 (S.G.)

13. B. Santana Rego, D.M. Raimondo, G.V. Raffo, **Set-based state estimation of nonlinear systems using constrained zonotopes and interval arithmetic**, ECC '18, citations: 3 (SC.), 4 (S.G.)

14. G. R. Marseglia, D. M. Raimondo, L. Magni, A. Mesbah, **A Probabilistic Framework for Reference Design for Guaranteed Fault Diagnosis under Closed-loop Control,** CDC 2017, citations: 1 (SC.), 2 (S.G.)

15. G. Galuppini, C. Toffanin, D.M. Raimondo, A. Provera, X. Yong, R. Rolfi, G. Ferrante, L. Magni, **Towards a Model-Based Field-Frequency Lock for NMR**, IFAC WC 2017, citations: 1 (SC.), 3 (S.G.)

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