Dario Piga: curriculum vitæ

Date and place of birth: 11th December, 1982, Alghero, Italy
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Short Bio

Dario Piga received his Ph.D. in Systems Engineering from the Politecnico di Torino (Italy) in 2012. He was Assistant Professor at the IMT School for Advanced Studies Lucca (Italy) and since 2017 he has been Senior Researcher at the IDSIA Dalle Molle Institute for Artificial Intelligence in Lugano (Switzerland), founder and head of the "learning and control group" at IDSIA. He has co-authored more than 130 peer-reviewed scientific papers in leading international journals and conferences in the fields of system identification, control theory, machine learning, and nonlinear optimization. He has collaborated with international companies and coordinated several research projects for the development of innovative AI-based systems in the manufacturing, transportation, biomedical and chemical industry. He is Associate Editor of the IFAC journal Automatica and the IEEE-CSS Conference Editorial Board.

Qualifications

Italian National Scientific **Habilitation as Full Professor in Automatic Control** (since 2021).

Current position

February 2017 - today   **Senior Researcher** at the IDSIA - Dalle Molle Institute for Artificial Intelligence, Scuola Universitaria Professionale della Svizzera Italiana, Lugano, Switzerland.

Previous positions

January 2015 - January 2017   **Assistant Professor** at the IMT School for Advanced Studies Lucca, Lucca, Italy.

April 2014 - December 2014   **Postdoc** at the Dalle Molle Institute for Artificial Intelligence, Scuola Universitaria Professionale della Svizzera Italiana, Lugano, Switzerland.

March 2013 - February 2014   **Postdoc** at the Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, The Netherlands.

February 2012 - February 2013   **Postdoc** at the Delft Center for Systems and Control (DCSC), Delft University of Technology, Delft, The Netherlands.

January 2009 – December 2011   **PhD student** at the Dipartimento di Informatica e Automatica, Politecnico di Torino, Torino, Italy.

May 2008 - December 2008   **Assistant researcher** at the Dipartimento di Informatica e Auto-

matica, Politecnico di Torino, Torino, Italy.

May 2004 - July 2004   **Internship at RSI Sistemi society, Altran Group**, Torino, Italy.

Visiting positions

November 2017   **Visiting Researcher** at the IMT School for Advanced Studies, Lucca, Italy. Hosted by Prof. Marco Paggi.

October 2012 - February 2013   **Visiting Researcher** at the Control Systems Group, Department of Electrical Engineering, Eindhoven University of Technology, The Netherlands. Hosted by Prof. Paul Van den Hof.

June 2010 - July 2010   **Visiting PhD student** at the Department of Fundamental Electricity and Instrumentation, Vrije Universiteit Brussel, Brussels, Belgium. Hosted by Prof. Johan Schoukens.

Education

Ph.D in Systems and Control Engineering, Politecnico di Torino, January 2009 – December 2011. Date of the PhD degree: 16/04/2012. Dissertation title: "A convex relaxation approach to set-membership identification". Advisor: Prof. Vito Cerone.

Master of Science Degree in Mechatronics Engineering, Politecnico di Torino, April 2008. Thesis title: "Performance analysis of KiteGen system: high-altitude wind power generation". Final grade: 110/110 *summa cum laude*. Advisor: Prof. Mario Milanese.

Bachelor of Science Degree in Electronics Engineering, Politecnico di Torino, September 2004. Thesis developed in collaboration with RSI Sistemi society, Altran Group, titled "Nonlinear system modeling from experimental data". Final grade: 110/110 *summa cum laude*. Advisor: Prof. Mario Milanese.

Acquisition of research funds, participation to projects, project reviewer

Research funds acquired in competitive calls

- *NeO2-Sens: Artificial intelligence for next generation of optical oxygen sensors*, **Hasler Foundation**, Local coordinator. April 2022 - November 2022 (local budget: 25'000 CHF, total budget: 50'000 CHF).

- *HYPER: HYbrid Physical-based and data-driven modelling for least-costly tuning in lasER cutting*, **Innosuisse project**, Swiss Innovation Agency. Project coordinator, Investigator. February 2021 - January 2023 (local budget: 465'901 CHF, total budget: 921'906 CHF).

- *ARTISTIC: ARTIficial Intelligence for real-time quality eSTImation and Control in laser cutting*, **Innosuisse project**, Swiss Innovation Agency. Project coordinator, Investigator, September 2020 - August 2022 (local budget: 568'118 CHF, total budget: 1'175'206 CHF).

- *ARES: AI for fluoREscence Spectroscopy in oil*, **Hasler Foundation**, Local coordinator. April 2021 - October 2021 (local budget: 22'600 CHF, total budget: 50'000 CHF).

- *VIOLA-II: Transfer learning in self-optimisation*, **Innosuisse project**, Swiss Innovation Agency. Local coordinator. July 2020 - June 2021 (local budget: 203'315 CHF, total budget: 414'075 CHF).

- *VIRTUOUS: Virtual tongue to predict the organoleptic profile of mediterranean ingredients and their effect on human homeostasis by means of an integrated computational multiphysics platform*, **EU H2020 Marie Curie RISE project**. Local coordinator at SUPSI. December 2019 - November 2023 (local budget: 165'000 EUR, total budget: 1'108'000 EUR).

- *SLAM 4.0: Smart LAser Manufacturing for precision industry 4.0*, **Innosuisse project**, Swiss Innovation Agency. Local coordinator at SUPSI. May 2019 - October 2020 (local budget: 419'000 CHF, total budget: 2'661'140 CHF).

- *ADMITTED: Advanced Data Methods for Improved Tiltrotor Test and Design*, **EU H2020-CS2 project**. Local coordinator at SUPSI. Co-investigated at IDSIA with G. Corani and M. Zaffalon. February 2019 - December 2023 (local budget: 482'000 EUR, total budget: 1'718'000 EUR).

- *AI-CARES: A remote engineering service for smart monitoring of ammonia synthesis plants using artificial intelligence*, **CTI project**, Swiss Commission for Technology and Innovation. Local coordinator at SUPSI. April 2018 - September 2019 (local budget: 431'194 CHF, total budget: 807'666 CHF).

- *Data-Driven Modeling of High Complexity Nonlinear Systems*, **Van Gogh Grant**, France/Netherlands academy, 2013, renewed for 2014 (5'000 EUR).

Participation to other research projects

- Innosuisse project ASCENDENT. From October 2020 to July 2021.

- EU H2020 project DAEDALUS. From March 2017 to September 2019.

- EU H2020 project DISIRE. From January 2015 to January 2017.

- EU FP7 project SmartH2O. From April 2014 to December 2014. Work Package leader.

- EU FP7 project AUTOPROFIT. From February 2013 to February 2014.

- National project "High power laser in nano-structured fibres", funded by Piedmont Region. From March 2009 to December 2010.

- National project "Power kites for naval propulsion", funded by Piedmont Region. From May 2008 to December 2008.

Projects' proposal evaluator

- European Union H2020 Marie Skłodowska-Curie Actions: 3 proposals.

- Italian Ministry of Higher Education and Research: 1 PRIN proposal.

- Netherlands Organisation for Scientific Research: 1 Veni and 1 Vidi Grant proposals.

Awards

Italian engineering, architectural and technical economic consulting association (OICE) Studentship as **best Master thesis on renewable energy** for the year 2008.

Technical association memberships and editorial activities

Journals

- Associate Editor for "Automatica", Journal of IFAC - International Federation of Automatic Control, Elsevier (since 2021).

- Guest Editor (with Prof. A. Bemporad) of the **Special Issue** *"New trends in modelling and control of hybrid systems"* for the International Journal of Robust and Nonlinear Control.

Conferences

- Guest Editor for the CIRP-CMS 2022, 55th International Conference on Manufacturing Systems, Procedia CIRP.

- Associate Editor for the Conference Editorial Board of the European Control Association (since 2019).

- Associate Editor for the Conference Editorial Board of the IEEE Control Systems Society (since 2018).

Review activities

- Reviewer of about 180 papers submitted to international journals and conferences like: IEEE Transaction on Automatic Control, IEEE Transaction on Control Systems Technology, Automatica, IET Control Theory & Applications, Control Engineering Practice, International Journal of Control, IEEE Conference on Decision and Control, American Control Conference, IFAC World Congress, IFAC Symposium on System Identification.

- Reviewer of 5 books (1 for IEEE-Wiley and 4 for Springer).

Memberships

- Member of the IFAC Technical Committee on Modelling, Identification, and Signal Processing (since 2017).

- Member of the IEEE-CSS Technical Committee on Medical and Healthcare Systems (since 2013).

- Member of the IEEE-CSS Technical Committee on System Identification and Adaptive Control (since 2013).

- Organizer (with Prof. S. Formentin and Dr. Marco Forgione) of the **invited session** *"Data-driven linear modelling and control for nonlinear systems"* for the 19th IFAC Symposium on System Identification, Padova, Italy, 2021.

- Organizer (with Prof. A. Bemporad) of the **invited session** *"Hybrid models: challanges and applications"* for the IEEE Conference on Decision and Control, Miami Beach, Florida, 2018.

- Organizer (with Prof. R. Tóth) of the **invited session** *"Data-driven modeling and control of Linear Parameter-Varying systems"* for the 52nd IEEE Conference on Decision and Control, Florence, Italy, 2013.

Swiss AI Lab IDSIA: Our Impact on Society and Industry, Swiss Business Hub Korea, Switzerland Innovation, June 2021. Link: `https://www.s-ge.com/ru/node/102592`

Invited talks and outreach activities

Swiss AI Lab IDSIA: Our Impact on Society and Industry, Swiss Business Hub Korea, Switzerland Innovation, June 2021. Link: `https://www.s-ge.com/ru/node/102592`

An artificial sommelier to replicate the magic of taste (in italian), Magazine OggiScienza, Interview edited by Michela Perrone. Link: `https://oggiscienza.it/2021/04/12/virtuous-marie-curie/`

Partnership between industry and university: the Swiss case, Phyd Events, Manufacturing: towards the factory of the future, February 2021.

VIRTUOUS: una ricerca gustosa, Podcast produced by Clara Caverzasio, December 2020. Link: `https://www.supsi.ch/home/comunica/podcast.html`

Artificial Intelligence: challenges and opportunities, Visionary Day 2020, Lugano, Switzerland, October 2020. Presentation on YouTube: `https://www.youtube.com/watch?v=M5PUUBHFKaU`

Automated calibration of Model Predictive Controllers, Universität zu Lübeck, Germany, September 2020.

Artificial intelligence solves real problems for industry and business, **Keynote speech**, Workshop on Artificial Intelligence in Photonics, organizers: SwissMEM and Swissphotonics, Brugg Windisch, Switzerland, September 2019.

Maximum-likelihood for regression and classification: an overview, IMT School for Advanced Studies Lucca, Lucca, Italy, November 2017.

Pitfalls and best practices in parametric identification, IMT School for Advanced Studies Lucca, Lucca, Italy, November 2017.

Model-free design of linear parameter-varying controllers: a direct data-driven approach, IMT School for Advanced Studies Lucca, Lucca, Italy, June 2017.

A hierarchical approach for model-free design of Linear Parameter-Varying controllers, Università degli Studi di Bergamo, Dalmine, Italy, November 2016.

Robust and probabilistic $\mathcal{D}$-stability analysis of uncertain polynomial matrices, Università degli Studi di L'Aquila, L'Aquila, Italy, May 2016.

Encounters between machine learning and Linear Parameter-Varying systems, IMT School for Advanced Studies Lucca, Lucca, Italy, June 2014.

LPV model order selection in an LS-SVM setting, Politecnico di Milano, Milano, Italy, March 2014.

Advancing LPV data-driven modeling and control via LS-SVM, Katholieke Universiteit Leuven, Leuven, Belgium, October 2013.

Bounded-error identification of dynamical systems, Vrije Universiteit Brussel, Brussels, Belgium, June 2010.

Teaching Activities

Vertical Domain Application in Key Areas, Bachelor in Data Science and Artificial Intelligence, Scuola Universitaria Professionale della Svizzera Italiana (SUPSI), from 2021. Responsible and Lecturer.

Applied Case Studies of Machine Learning and Deep Learning in Key Areas I - II, Bachelor in Data Science and Artificial Intelligence, Scuola Universitaria Professionale della Svizzera Italiana (SUPSI), from 2022. Responsible.

Presentation of the VIRTUOUS project, PhD Summer School on Advanced Machine Learning for Drug Discovery, Scuola Universitaria Professionale della Svizzera Italiana (SUPSI), 2022. Invited lecturer.

Introduction to Machine Learning External Course for Casale S.A. (www.casale.ch), Scuola Universitaria Professionale della Svizzera Italiana (SUPSI), 2019.

Data Science Bachelor course, Scuola Universitaria Professionale della Svizzera Italiana (SUPSI), 2018/2019 (in Italian).

Identification, Analysis and Control of Dynamical Systems Doctoral course, IMT School for Advanced Studies, 2015/2016, 2016/2017, 2017/2018 (in English).

Robust Control Course for Master's degree, Eindhoven University of Technology, 2013/2014 (in English).

Dynamic programming and model predictive control Course for 2nd level specializing Master in Automatica and Control Technologies, Politecnico di Torino. 2010/2011, 2011/2012 (in English).

Advanced control applications Course for 2nd level specializing Master in Automatica and Control Technologies, Politecnico di Torino, 2010/2011, 2011/2012 (in English).

Model Predictive Control: theory and practice Doctoral course, Politecnico di Torino, 2010/2011 (in English).

Principles of Automatic control Course for Bachelor's degree in Automotive Engineering, Politecnico di Torino, 2010/2011 (in English).

Automatic control Course for Master's degree in Biomedical Engineering, Politecnico di Torino, 2010/2011 (in Italian).

Automatic control Course for Bachelor's degree in Electronics and Informatics Engineering, Politecnico di Torino, 2009/2010, 2010/2011, 2011/2012 (in Italian).

Responsibility of other researchers' activities and students

Leadership of Research Group
Head and founder of the "Learning for decision and control" group at IDSIA-SUPSI.

Current members of the group:

- Loris Cannelli, Researcher with PhD

- Marco Forgione, Researcher with PhD

- Gabriele Maroni, Researcher with PhD

- Manas Mejari, Researcher with PhD

- Loris Roveda, Researcher with PhD

- Marco Maccarini, Researcher

- Filippo Pura, Researcher

- Denis Broggini, Researcher (30%)

- Francesco Faccio, Researcher (35%)

Former members of the group:

- Bojan Mavkov, Researcher with PhD

Supervised PhD students

- Manas D. Mejari, **PhD student**, IMT School for Advanced Studied Lucca. Co-supervised with Prof. Alberto Bemporad. Graduated on July 2018.

- Valentina Breschi, **PhD student**, IMT School for Advanced Studied Lucca. Co-supervised with Prof. Alberto Bemporad. Graduated on February 2018.

Supervised Master students

- Pura Filippo, **Master thesis**, IDSIA-SUPSI.

- Marco Maccarini, **Master thesis**, IDSIA-SUPSI.

- Luca Scibona, **Master's Thesis**, IDSIA-USI.

- Denis Broggini, **Master thesis**, IDSIA-SUPSI.

- Andrea Vescovi, **Master thesis**, IDSIA-SUPSI.

- Nick van der Sanden, **Master thesis**, Eindhoven University of Technology. Main supervisor: Prof. Roland Tóth.

- René Duijkers, **Master thesis**, Eindhoven University of Technology. Main supervisor: Prof. Roland Tóth.

- Margherita Merio, **Bachelor Thesis**, Politecnico di Torino. Main supervisor: Prof. Carlo Novara.

Institutional activities

Member of the Academic Council at the IMT School for Advanced Studies, Lucca, as a representative of Researchers and Assistant Professors (January 2016 - February 2017).

PhD thesis committee member

- Daniele Masti, IMT Lucca, Italy

- Francesco Cesarone, University of L'Aquila, Italy

- Federico Bianchi, Politecnico di Milano, Italy

- Manas D. Mejari, IMT Lucca, Italy

- Valentina Breschi, IMT Lucca, Italy

- Mogens Graff Plessen, IMT Lucca, Italy

- Mutti Ur Rehman, GSSI Gran Sasso Science Institute, L'Aquila, Italy

Peer-reviewed publications

Journal papers

[J1] L. Roveda, A. Bussolan, F. Braghin, D. Piga, "Robot Joint Friction Compensation Learning Enhanced by 6D Virtual Sensor", *International Journal of Robust and Nonlinear Control*, In press. ISSN 1099-1239.

[J2] M. Mejari, B. Mavkov, M. Forgione, D. Piga, "Direct identification of continuous-time LPV state-space models via an integral architecture", *Automatica*, Vol. 142, 2022. ISSN 0005-1098.

[J3] M. Malavolta, L. Pallante, B. Mavkov, F. Stojceski, G. Grasso, A. Korfiati, S. Mavroudi, A. Kalogeras, C. Alexakos, V. Martos, D. Amoroso, G. di Benedetto, D. Piga, K. Theofilatos, M. A. Deriu, " Survey on Computational Taste Predictors", *European Food Research and Technology*, 2022. Doi: https://doi.org/10.1007/s00217-022-04044-5. ISSN 1438-2377.

[J4] F. Bianchi, L. Piroddi, A. Bemporad, G. Halasz, M. Villani, D. Piga, "Active preference-based optimization for human-in-the-loop feature selection", *European Journal of Control*, 2022. ISSN 0947-3580.

[J5] L. Roveda, A. A. Shahid, N. Iannacci, D. Piga, "Sensorless Optimal Interaction Control Exploiting Environment Stiffness Estimation", *IEEE Transactions on Control Systems Technology*, Vol. 30, No. 1, 2022. ISSN 1063-6536.

[J6] A. A. Shahid, D. Piga, F. Braghin, L. Roveda, "Continuous control actions learning and adaptation for robotic manipulation through reinforcement learning", *Autonomous Robots*, 2022. ISSN 0929-5593.

[J7] L. Roveda, M. Maroni, L. Mazzuchelli, L. Praolini, A. A. Shahid1. G. Bucca, D. Piga, "Robot End-Effector Mounted Camera Pose Optimization in Object Detection-Based Tasks", *Journal of Intelligent & Robotic Systems*, 2022. ISSN 0921-0296.

[J8] M. Mejari, D. Piga, "Maximum-a-posteriori estimation of LTI state-space models via efficient Monte-Carlo sampling", *ASME Letters in Dynamic Systems and Control*, Vol. 2, 2022. ISSN 2689-6117.

[J9] D. Piga, M. Mejari, M. Forgione, "Learning dynamical systems from quantized observations: a Bayesian perspective", *IEEE Transactions on Automatic Control*, 2021. ISSN 0018-9286.

[J10] M. Zhu, D. Piga, A. Bemporad, "C-GLISp: Preference-Based Global Optimization under Unknown Constraints with Applications to Controller Calibration", *IEEE Transactions on Control Systems Technology*, 2021. ISSN 1063-6536.

[J11] L. Roveda, B. Maggioni, E. Marescotti, A. Shahid, A. M. Zanchettin, A. Bemporad, D. Piga, "Pairwise Preferences-Based Optimization of a Path-Based Velocity Planner in Robotic Sealing Tasks", *IEEE Robotics and Automation Letters*, Vol. 6, 2021. ISSN 2377-3766.

[J12] L. Pallante, M. Malavolta, G. Grasso, A. Korfiati, S. Mavroudi, B. Mavkov, A. Kalogeras, C. Alexakos, V. Martos, D. Amoroso, G. di Benedetto, D. Piga, K. Theofilatos, M. A. Deriu,

"On the human taste perception: Molecular-level understanding empowered by computational methods", *Trends in Food Science & Technology*, Vol. 116, 2021. ISSN 0924-2244.

[J13] A. Benavoli, D. Azzimonti, D. Piga, "A unified framework for closed-form nonparametric regression, classification, preference and mixed problems with Skew Gaussian Processes", *Machine Learning*, Vol. 110, 2021. ISSN 1877–1902.

[J14] G. Grasso, A. Di Gregorio, B. Mavkov, D. Piga, G. Falvo D'Urso Labate, A. Danani, M. A. Deriu, " Fragmented Blind Docking: a Novel Protein-Ligand Binding Prediction Protocol ", *Journal of Biomolecular Structure and Dynamics*, 2021. ISSN 1538-0254 .

[J15] U. Michelucci, M. Sperti, D. Piga, F. Venturini, M.A. Deriu, "Model-Agnostic Algorithm for Bayes Error Determination in Binary Classification", *Algorithms*, Vol. 14, 2021. ISSN 1999-4893.

[J16] A. A. Shahid, J. S. V. Sesin, D. Pecioski, F. Braghin, D. Piga, L. Roveda "Decentralized Multi-Agent Control of a Manipulator in Continuous Task Learning", *Applied Science*, **Special issue**, 2021. ISSN 2076-3417.

[J17] G. Halasz, M. Sperti; M. Villani, U. Michelucci, P. Agostoni, A. Biagi, L. Rossi, A. Botti, C. Mari, M. Maccarini, F. Pura, L. Roveda, A. Nardecchia, E. Mottola, M. Nolli, E. Salvioni, M. Mapelli, M. A. Deriu, D. Piga, M. Piepoli, "Predicting outcomes in the Machine Learning era: The Piacenza score a purely data driven approach for mortality prediction in COVID-19 Pneumonia", *Journal of Medical Internet Research*, Vol. 23, No. 5, 2021. ISSN 1438-8871.

[J18] M. Forgione, D. Piga, "Continuous-time system identification with neural networks: model structures and fitting criteria", *European Journal of Control*, Vol. 59, 2021. ISSN 0947-3580.

[J19] L. Roveda, D. Riva, G. Bucca and D. Piga, "Sensorless Optimal Switching Impact/Force Controller", *IEEE Access*, Vol. 9, 2021. ISSN 2169-3536.

[J20] F. D'Ascenzo, O. De Filippo, G. Gallone, G. Mittone, M. A. Deriu, M. Iannaccone, A. Ariza-Solé, C. Liebetrau, S. Manzano-Fernández, G. Quadri, T. Kinnaird, G. Campo, J. P. S. Henriques, J. M. Hughes, A. Dominguez-Rodriguez, M. Aldinucci, U. Morbiducci, G. Patti, S. Raposeiras-Roubin, E. Abu-Assi, G. M. De Ferrari, F. Piroli, A. Saglietto, F. Conrotto, P. Omedé, A. Montefusco, M. Pennone, F. Bruno, P. P. Bocchino, G. Boccuzzi, E. Cerrato, F. Varbella, M. Sperti, S. B. Wilton, L. Velicki, I. Xanthopoulou, A. Cequier, A. Iniguez-Romo, I. Munoz Pousa, M. Cespon Fernandez, B. Caneiro Queija, R. Cobas-Paz, A. Lopez-Cuenca, A. Garay, P. Flores Blanco, A. Rognoni, G. Biondi Zoccai, S. Biscaglia, I. Nunez-Gil, T. Fujii, A. Durante, X. Song, T. Kawaji, D. Alexopoulos, Z. Huczek, J. R. Gonzalez Juanatey, S. Nie, M. Kawashiri, I. Colonnelli, B. Cantalupo, R. Esposito, S. Leonardi, W. Grosso Marra, A. Chieffo, U. Michelucci, D. Piga, M. Malavolta, S. Gili, M. Mennuni, C. Montalto, L. Oltrona Visconti, Y. Arfat. "Machine learning-based prediction of adverse events following an acute coronary syndrome (PRAISE): a modelling study of pooled datasets". *The Lancet*, Vol. 397, No. 10270, 2021. ISSN 0140-6736.

[J21] D. Selvi, D. Piga, G. Battistelli, A. Bemporad, "Optimal direct data-driven control with stability guarantees", *European Journal of Control*, Vol. 59, 2021. ISSN 0947-3580.

[J22] F. Bianchi, V. Breschi, D. Piga, L. Piroddi, "Model structure selection for switched NARX system identification: a randomized approach", *Automatica*, Vol. 125, 2021. ISSN 0005-1098.

[J23] M. Forgione, D. Piga, "dynoNet: a neural network architecture for learning dynamical systems", *International Journal of Adaptive Control and Signal Processing*, Vol. 35, No. 4, 2021. ISSN 1099-1115.

[J24] L. Roveda, M. Magni, M. Cantoni, D. Piga, G. Bucca, "Human-Robot Collaboration in Sensorless Assembly Task Learning Enhanced by Uncertainties Adaptation via Bayesian Optimization", *Robotics and Autonomous Systems*, Vol. 136, 2021. ISSN 0921-8890.

[J25] L. Roveda, D. Piga, "Sensorless environment stiffness and interaction force estimation for impedance control tuning in robotized interaction tasks", *Autonomous Robots*, 2021. ISSN 0929-5593.

[J26] A. Bemporad, D. Piga, "Global optimization based on active preference learning with radial basis functions", *Machine Learning*, 2021. ISSN 1877–1902.

[J27] D. Piga, V. Breschi, A. Bemporad, "Estimation of Jump Box-Jenkins Models", *Automatica*, Vol. 120, 2020. ISSN 0005-1098.

[J28] D. Piga, A. Bemporad, A. Benavoli, "Rao-Blackwellized Sampling for Batch and Recursive Bayesian Inference of Piecewise Affine Models", *Automatica*, Vol. 117, 2020. ISSN 0005-1098.

[J29] L. Roveda, D. Piga, "Robust State Dependent Riccati Equation Variable Impedance Control for Robotic Force-Tracking Tasks", *International Journal of Intelligent Robotics and Applications*, Vol. 4, 2020. ISSN 2366-5971.

[J30] L. Roveda, M. Forgione, D. Piga, "Robot Control Parameters Auto-Tuning in Trajectory Tracking Applications", *Control Engineering Practice*, Vol. 101, 2020. ISSN 0967-0661.

[J31] M. Mejari, V. Breschi, D. Piga, "Recursive Bias-Correction Method for Identification of Piecewise Affine Output-Error Models", *IEEE Control Systems Letters*, Vol. 4, No. 4, pp. 970-975, 2020. ISSN 2475-1456.

[J32] B. Mavkov, M. Forgione, D. Piga, "Integrated Neural Networks for Nonlinear Continuous-Time System Identification", *IEEE Control Systems Letters*, Vol. 4, No. 4, 2020. ISSN 2475-1456.

[J33] A. Benavoli, D. Azzimonti, D. Piga, "Skew Gaussian Processes for Classification", *Machine Learning*, Vol. 109, 2020. ISSN 1877–1902. (also presented at the European Conference on Machine Learning 2020).

[J34] L. Roveda, A: Bussolan, F. Braghin, D. Piga, "6D Virtual Sensor for Wrench Estimation in Robotized Interaction Tasks Exploiting Extended Kalman Filter", **Special issue**, *Machine Dynamics and Automation*, Vol. 8, No. 4, 2020. ISSN 2075-1702.

[J35] M. Mejari, V. Naik, D. Piga, A. Bemporad, "Identification of Hybrid and LPV Models via Piecewise Affine Regression using Mixed Integer Programming", **Special issue**, *International Journal of Robust and Nonlinear Control*, Vol. 30, 2020. ISSN 1099-1239.

[J36] D. Piga, "Finite-horizon integration for continuous-time identification: bias analysis and application to variable stiffness actuators", *International Journal of Control*, Vol. 93, No. 10, 2020. ISSN 0020-7179.

[J37] V. Laurain, R. Tóth, D. Piga, M.A.H. Darwish, "Sparse RKHS Estimation via Globaly Convex Optimization and its Application in LPV-IO Identification", *Automatica*, Vol. 115, 2020. ISSN 0005-1098.

[J38] A. Lucchini, S. Formentin, M. Corno, D. Piga, S. M. Savaresi "Torque vectoring for high-performance electric vehicles: an efficient MPC calibration", **Special issue**, *IEEE Control Systems Letters*, Vol. 4, No. 3, 2020. ISSN 2475-1456.

[J39] D. Piga, M. Forgione, S. Formentin, A. Bemporad, "Performance-oriented model learning for data-driven MPC design", *IEEE Control Systems Letters*, 2019. ISSN 2475-1456. (also presented as an **invited paper** at the IEEE Conference on Decision and Control 2019).

[J40] V. Breschi, D. Piga, A. Bemporad, "Online end-use energy disaggregation via jump linear models", *Control Engineering Practice*, Vol. 89, 30–42, 2019. ISSN 0967-0661.

[J41] V. Carollo, D. Piga, C. Borri, M. Paggi, "Identification of elasto-plastic and nonlinear fracture mechanics parameters of silver-plated copper busbars for photovoltaics", *Engineering Fracture Mechanics*, Vol. 205, 2019. ISSN 0013-7944.

[J42] A. Benavoli, A. Facchini, D. Piga, M. Zaffalon, "Sum-Of-Squares for bounded rationality", *International Journal of Approximate Reasoning*, Vol. 105, 130-152, 2019. ISSN 0888-613X.

[J43] A. Bemporad, V. Breschi, D. Piga, S. Boyd, "Fitting Jump Models", *Automatica*, Vol. 96, 11-21, 2018. ISSN 0005-1098.

[J44] D. Piga, S. Formentin, A. Bemporad, "Direct data-driven control of constrained linear parameter-varying systems: A hierarchical approach", *IEEE Transactions on Control Systems Technology*, Vol. 26, No. 4, 1422-1429, 2018. ISSN 1063-6536.

[J45] M. Mejari, D. Piga, A. Bemporad, "A bias-correction method for closed-loop identication of linear parameter-varying systems", *Automatica*, Vol. 87, 128-141, 2018. ISSN 0005-1098.

[J46] D. Piga, A. Benavoli, "A unified framework for deterministic and probabilistic $\mathcal{D}$-stability analysis of uncertain polynomial matrices", *IEEE Transactions on Automatic Control*, Vol. 62, No. 10, 5437-5444, 2017. ISSN 0018-9286.

[J47] J. Lataire, R. Pintelon, D. Piga, R. Tóth, "Continuous-time linear time-varying system identification with a frequency domain kernel based estimator", IET Control Theory & Applications, Vol. 11, 2017. ISSN 1751-8644.

[J48] A. Cominola, M. Giuliani, D. Piga, A. Castelletti, A. E. Rizzoli, "A Hybrid Signature-based Iterative Disaggregation algorithm for Non-Intrusive Load Monitoring", *Applied Energy*, Vol. 185, 2017. ISSN 0306-2619.

[J49] V. Breschi, D. Piga, A. Bemporad, "Piecewise Affine Regression via Recursive Multiple Least Squares and Multicategory Discrimination", *Automatica*, Vol. 73, pp. 155-162, 2016. ISSN 0005-1098.

[J50] A. Benavoli, D. Piga, "A probabilistic interpretation of set-membership filtering: Application to polynomial systems through polytopic bounding ", *Automatica*, Vol. 70, pp. 158-172, 2016. ISSN 0005-1098.

[J51] S. Formentin, D. Piga, R. Tóth, S. M. Savaresi, "Direct learning of LPV controllers from data", *Automatica*, Vol. 65, pp. 98-110, 2016. ISSN 0005-1098.

[J52] D. Piga, "Computation of the Structured Singular Value via Moment LMI Relaxations", *IEEE Transactions on Automatic Control*, Vol. 59, No. 11, pp. 2897-2909, 2016. ISSN 0018-9286.

[J53] D. Piga, A. Cominola, M. Giuliani, A. Castelletti, A. E. Rizzoli, "Sparse optimization for automated energy end use disaggregation", *IEEE Transactions on Control Systems Technology*, Vol. 24, No. 3, pp. 1044-1051, 2016. ISSN 1063-6536.

[J54] A. Cominola, M. Giuliani, D. Piga, A. Castelletti, A. E. Rizzoli, "Benefits and challenges of using smart meters for advancing residential water demand modeling and management: a review", *Environmental Modelling & Software* , Vol. 72, pp. 198-214, 2015. ISSN 1364-8152.

[J55] D. Piga, P.B. Cox, R. Tóth, V. Laurain, "LPV system identification under noise corrupted scheduling and output signal observations", *Automatica*, Vol. 53, pp. 329-338, 2015. ISSN 0005-1098.

[J56] V. Laurain, R. Tóth, D. Piga, W. X. Zheng, "An Instrumental Least Squares Support Vector Machine for Nonlinear System Identification", *Automatica*, Vol. 54, pp. 340-347, 2015. ISSN 0005-1098.

[J57] V. Cerone, D. Piga, D. Regruto, "Characteristic polynomial assignment for plants with semialgebraic uncertainty: a robust diophantine equation approach", *International Journal of Robust and Nonlinear Control*, Vol. 25, No. 16, pp. 2911–2921, 2015. ISSN 1099-1239. **In this paper the authors are listed in alphabetical order.**

[J58] D. Piga, R. Tóth, "Bias-corrected estimators for nonlinear systems with output-error type model structures", *Automatica*, Vol. 50, No. 9, pp. 2373-2380, 2014. ISSN 0005-1098.

[J59] V. Cerone, J. B. Lasserre, D. Piga, D. Regruto, "A unified framework for solving a general class of conditional and robust set-membership estimation problems", **Special issue**, *IEEE Transactions on Automatic Control*, Vol. 59, No. 11, pp. 2897-2909, 2014. ISSN 0018-9286. **In this paper the authors are listed in alphabetical order.**

[J60] M. Canale, V. Cerone, D. Piga, D. Regruto, "Approximation of Model Predictive Control laws for polynomial systems", *Asian Journal of Control*, Vol. 16, No. 5, pp. 1425-1436, 2014. ISSN 1561-8625. **In this paper the authors are listed in alphabetical order.**

[J61] D. Piga, R. Tóth, "An SDP approach for ℓ_0-minimization: application to ARX model segmentation", *Automatica*, Vol. 49, No. 12, pp. 3646-3653, 2013. ISSN 0005-1098.

[J62] V. Cerone, D. Piga, D. Regruto, "Fixed-order FIR approximation of linear systems from quantized input and output data", *Systems & Control letters*, Vol. 62 No. 12, pp. 1136-1142, 2013. ISSN 0167-6911. **In this paper the authors are listed in alphabetical order.**

[J63] V. Cerone, D. Piga, D. Regruto, "A convex relaxation approach to Set-membership identification of LPV systems", *Automatica*, Vol. 49, No. 9, pp. 2853-2859, 2013. ISSN 0005-1098. **In this paper the authors are listed in alphabetical order.**

[J64] V. Cerone, D. Piga, D. Regruto, "Computational load reduction in bounded error identification of Hammerstein systems", *IEEE Transactions on Automatic Control*, Vol. 58, No. 5, pp. 1317-1322, 2013. ISSN 0018-9286. **In this paper the authors are listed in alphabetical order.**

[J65] V. Cerone, D. Piga, D. Regruto, "Bounding the parameters of block-structured nonlinear feedback systems", *International Journal of Robust and Nonlinear Control*, Vol. 23, No. 1, pp. 33-47, 2013. ISSN 1049-8923. **In this paper the authors are listed in alphabetical order.**

[J66] L. Fagiano, M. Milanese, D. Piga, "Optimization of Airborne Wind Energy generators", *International Journal of Robust and Nonlinear Control*, Vol. 22, No. 18, pp. 2055-2083, 2013. ISSN 1049-8923. **In this paper the authors are listed in alphabetical order.**

[J67] V. Cerone, D. Piga, D. Regruto, "Bounded error identification of Hammerstein systems through sparse polynomial optimization", *Automatica*, vol. 48, n. 10, pp. 2693-2698, 2012. ISSN 0005-1098. **In this paper the authors are listed in alphabetical order.**

[J68] V. Cerone, D. Piga, D. Regruto, "Set-Membership error-in-variables identification through convex relaxation techniques", *IEEE Transactions on Automatic Control*, Vol. 57, No. 2, pp. 517-522, 2012. ISSN 0018-9286. **In this paper the authors are listed in alphabetical order.**

[J69] V. Cerone, D. Piga, D. Regruto, "Enforcing stability constraints in Set-membership identification of linear dynamic systems", *Automatica*, Vol. 47, No. 11, pp. 2488-2494, 2011. ISSN 0005-1098. **In this paper the authors are listed in alphabetical order.**

[J70] V. Cerone, D. Piga, D. Regruto, "Set-membership LPV model identification of vehicle lateral dynamics", *Automatica*, Vol. 47, No. 8, pp. 1794-1799, 2011. ISSN 0005-1098. **In this paper the authors are listed in alphabetical order.**

[J71] V. Cerone, D. Piga, D. Regruto, "Improved parameters bounds for set-membership EIV problems", *International Journal of adaptive control and signal processing*, **Special issue**, Vol. 25, No. 3, pp. 208-227, 2011. ISSN 0890-6327. **In this paper the authors are listed in alphabetical order.**

[J72] L. Fagiano, M. Milanese, D. Piga, "High altitude wind power generation", *IEEE Transactions on Energy Conversion*, Vol. 25, No. 1, pp. 168-180, 2010. ISSN 0885-8969. **In this paper the authors are listed in alphabetical order.**

Book Chapters

[BC1] D. Piga, S. Formentin, R. Tóth, A. Bemporad, S. Savaresi, "A hierarchical approach to data-driven LPV control design of constrained systems'", (C. Novara and S. Formentin, Editors), The Institution of Engineering and Technology (IET), 2019. ISBN 9781785617126.

[BC2] A. Brusaferri, G. Pallucca, F. A. Cavadini, G. Montalbano and D. Piga, "Model Predictive Control in Discrete Manufacturing Shopfloors , In "The Digital Shopfloor: Industrial Automation in the Industry 4.0 Era" (F. Cavadini and O. Lazaro and J. Soldatos and M. de Jongh and C. Decubber, Editors), River Publishers, 2019. ISBN 978-8770220415.

[BC3] V. Cerone, D. Piga, D. Regruto, "Set-membership identification of input-output LPV models", In: Identification of Linear Parameter-Varying Systems", (P. Lopes dos Santos, C. Novara, D. Rivera, J. Ramos and T-P. Perdicoulis, Editors), World Scientific Publishing, 2011. ISBN 9789814355445. **In this paper the authors are listed in alphabetical order.**

[BC4] V. Cerone, D. Piga, D. Regruto, "Bounded error identification of Hammerstein systems with backlash", In: Block-oriented nonlinear system identification, Lecture notes in Control and Information sciences (F. Giri and E. W. Bai, Editors), Springer, 2010. ISBN 9781849965125. **In this paper the authors are listed in alphabetical order.**

Conference papers

[C1] Kronauer S., B. Mavkov, M. Mejari, D. Piga, F. Jaques, Rino DAmario, R. Di Campli, A. Nasciuti, "Data-driven statistical analysis for discharge position prediction on Wire EDM", *ISEM XXI - Procedia CIRP*, Zurich, Switzerland, 2022.

[C2] D. Piga, M. Forgione, M. Mejari, "Deep learning with transfer functions: new applications in system identification", *Proc. of the 19th IFAC Symposium on System Identification*, Padova (virtual), Italy, 2021.

[C3] M. Zhu, A. Bemporad, D. Piga, "Preference-based MPC calibration", *Proc. of the European Control Conference*, Rotterdam (virtual), The Netherlands, 2021.

[C4] A. Benavoli, D. Azzimonti, D. Piga, "Preferential Bayesian optimisation with Skew Gaussian Processes", *Proc. of the Genetic and Evolutionary Computation Conference (GECCO)*, Lille (virtual), France, 2021.

[C5] M. Mejari, B. Mavkov, M. Forgione, D. Piga, "An integral architecture for identification of continuous-time state-space LPV models", *Proc. of the 4th IFAC Workshop on Linear Parameter Varying Systems*, Milan, Italy (virtual), 2021.

[C6] L. Roveda, D. Riva, G. Bucca, D. Piga, "External Joint Torques Estimation for a Position-Controlled Manipulator Employing an Extended Kalman Filter", *Proc. of the 18th International Conference on Ubiquitous Robots*, Gangneung-si, Gangwon-do, Korea (virtual), 2021.

[C7] L. Roveda, M. Maroni, L. Mazzuchelli, L. Praolini, G. Bucca, D. Piga , "Enhancing Object Detection Performance Through Sensor Pose Definition with Bayesian Optimization", *Proc. of the 2021 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4.0&IoT)*, Rome, Italy, 2021.

[C8] M. Mejari, V. Breschi, D. Piga, "A Bias-Correction Approach for the Identification of Piecewise Affine Output-Error Models", *Proc. of the IFAC World Congress*, Berlin, Germany, 2020.

[C9] L. Roveda, M. Forgione, D. Piga, "Two-Stage Robot Controller Auto-Tuning Methodology for Trajectory Tracking Applications", *Proc. of the IFAC World Congress*, Berlin, Germany, 2020.

[C10] M. Forgione, D. Piga, A. Bemporad, "Efficient Calibration of Embedded MPC", *Proc. of the IFAC World Congress*, Berlin, Germany, 2020.

[C11] L. Roveda, M. Magni, M. Cantoni, D. Piga, G. Bucca, "Task Learning and Optimization through Humans Demonstration and Machine Learning", *Proc. of the IEEE International Conference on Systems, Man, and Cybernetics*, Toronto, Canada, 2020.

[C12] A. A. Shahid, L. Roveda, D. Piga, F. Braghin, "Learning Continuous Control Actions for Robotic Grasping with Reinforcement Learning", *Proc. of the IEEE International Conference on Systems, Man, and Cybernetics*, Toronto, Canada, 2020.

[C13] M. Forgione, D. Piga, "Model structures and fitting criteria for system identification with neural networks ", *Proc. of the 14th IEEE AICT International Conference*, Tashkent, Uzbekistan, 2020.

[C14] L. Roveda, D. Piga, "Interaction Force Computation Exploiting Environment Stiffness Estimation for Sensorless Robot Applications", *Proc. of the 2020 IEEE International Workshop on Metrology for Industry 4.0 & IoT (MetroInd4.0&IoT)* , Rome, Italy, 2020.

[C15] L. Roveda, M. Forgione, D. Piga, "One-Stage Auto-Tuning Procedure of Robot Dynamics and Control Parameters for Trajectory Tracking Applications", *Proc. of the 17th International Conference on Ubiquitous Robots*, Kyoto, Japan, 2020.

[C16] V. Breschi, D. Piga, A. Bemporad, "Maximum-a-posteriori estimation of jump Box-Jenkins models", *Proc. of the IEEE Conference on Decision and Control*, Nice, France, 2019.

[C17] D. Piga, A. Benavoli, "Semialgebraic Outer Approximations for Set-Valued Nonlinear Filtering", *Proc. of the European Control Conference*, Naples, Italy, 2019.

[C18] M. Mejari, D. Piga, R. Tóth, A. Bemporad, "Kernelized Identification of Linear Parameter-Varying Models with Linear Fractional Representation", *Proc. of the European Control Conference*, Naples, Italy, 2019.

[C19] A. Barni, A. Brusaferri, F. A. Cavadini, G. Landolfi, S. Patil, D. Piga, S. Spinelli, V. Vyatnik, "Fostering the creation of a Digital Ecosystem by a distributed IEC-61499 based automation platform", *Proc. of the IEEE International Conference on Industrial Informatics, Industrial Applications of Artificial Intelligence*, Helsinki, Finland, 2019.

[C20] C. Rottondi, M. Derboni, D. Piga, A.E. Rizzoli, "An optimisation-based energy disaggregation algorithm for low frequency smart meter data", *Proc. of the 8th DACH and Conference on Energy Informatics*, Salzburg, Austria, 2019.

[C21] V. Breschi, D. Piga, A. Bemporad, S. Boyd, "Prediction error methods in learning jump ARMAX models", *Proc. of the IEEE Conference on Decision and Control*, Miami Beach, Florida, USA, 2018.

[C22] M. Mejari, V. Naik, D. Piga, A. Bemporad "Energy Disaggregation using Piecewise Affine Regression and Binary Quadratic Programming", **Invited Paper**, *Proc. of the IEEE Conference on Decision and Control*, Miami Beach, Florida, USA, 2018.

[C23] V. Breschi, D. Piga, A. Bemporad, "Jump model learning and filtering for energy end-use disaggregation", *Proc. of the 18th IFAC Symposium on System Identification*, Stockholm, Sweden, 2018.

[C24] M. Mejari, V. Naik, D. Piga, A. Bemporad, "Regularized Moving-Horizon PWA Regression for LPV System Identification", *Proc. of the 18th IFAC Symposium on System Identification*, Stockholm, Sweden, 2018.

[C25] D. Selvi, D. Piga, A. Bemporad, "Towards direct data-driven model-free design of optimal controllers", *Proc. of the 17th European Control Conference*, Limassol, Cyprus, 2018.

[C26] V. Breschi, D. Piga, A. Bemporad, "Kalman filtering for energy disaggregation", *Proc. of the IFAC Workshop on Integrated Assessment Modelling for Environmental Systems*, Brescia, Italy, 2018.

[C27] M. Mejari, D. Piga, A. Bemporad, "LPV Model Order Selection from Noise-Corrupted Output and Scheduling Signal Measurements", *Proc. of the 20th IFAC World Congress*, Toulouse, France, 2017.

[C28] V. Naik, M. Mejari, D. Piga, A. Bemporad, "Regularized Moving-Horizon Piecewise Affine Regression Using Mixed-Integer Quadratic Programming", **Invited Paper**, *Proc. of the 25th Mediterranean Conference on Control and Automation*, Valletta, Malta, 2017.

[C29] A. Benavoli, A. Facchini, D. Piga, M. Zaffalon, 'SOS for bounded rationality", *Proc. of the 10th International Symposium on Imprecise Probability: Theories and Applications*, Lugano, Switzerland, 2017.

[C30] V. Breschi, D. Piga, A. Bemporad, "Learning Hybrid Models with Logical and Continuous Dynamics Via Multiclass Linear Separation", *Proc. of the 55th IEEE Conference on Decision and Control*, Las Vegas, Nevada, USA, 2016.

[C31] M. Mejari, D. Piga, A. Bemporad, "Regularized Least Square Support Vector Machines for Order and Structure Selection of LPV-ARX models", *Proc. of the 15th European Control Conference*, Aalborg, Denmark, 2016.

[C32] V. Breschi, A. Bemporad, D. Piga, "Identification of Hybrid and Linear Parameter Varying Models via Recursive Piecewise Affine Regression and Discrimination", *Proc. of the 15th European Control Conference*, Aalborg, Denmark, 2016.

[C33] D. Piga, A. Cominola, M. Giuliani, A. Castelletti, A. E. Rizzoli, "A convex optimization approach for automated water and energy end-use disaggregation", *36th IAHR World Congress Proceedings*, The Hague, The Netherlands, 2015.

[C34] A. Cominola, M. Giuliani, D. Piga, A. Castelletti, A. E. Rizzoli, "Modelling residential water consumers' behaviours by feature selection and feature weighting", *36th IAHR World Congress Proceedings*, The Hague, The Netherlands, 2015.

[C35] S. Formentin, D. Piga, R. Tóth, S. M. Savaresi, "Nonparametric LPV data-driven control", *1st IFAC Symposium on Linear Parameter Varying Systems*, Grenoble, France, 2015, pp. 146-151, 2015.

[C36] R. Duijkers, R. Tóth, D. Piga, V. Laurain, "Shrinking Complexity of Scheduling Dependencies in LS-SVM Based LPV System Identification", **Invited Paper**, *Proc. of the 53rd IEEE Conference on Decision and Control*, Los Angeles, California, USA, 2014.

[C37] J. Lataire, D. Piga, R. Tóth, "Frequency-domain least-squares support vector machines to deal with correlated errors when identifying linear time-varying systems", *Proc. of the 19th IFAC World Congress*, Cape Town, South Africa, 2014.

[C38] D. Piga, R. Tóth, "LPV model order selection in an LS-SVM setting", *Proc. of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, 2013.

[C39] S. Formentin, D. Piga, R. Tóth, S. M. Savaresi, "Direct data-driven control of linear parameter-varying systems", **Invited Paper**, *Proc. of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, 2013.

[C40] V. Cerone, D. Piga, D. Regruto, " Polytopic Outer Approximations of Semialgebraic Sets", *Proc. of the 51st IEEE Conference on Decision and Control*, Maui, Hawaii, USA, 2012. **In this paper the authors are listed in alphabetical order.**

[C41] V. Cerone, D. Piga, D. Regruto, R. Tóth, "Fixed Order LPV Controllers Design for LPV Models in Input-Output Form", **Invited Paper**, *Proc. of the the 51st IEEE Conference on Decision and Control*, Maui, Hawaii, USA, 2012. **In this paper the authors are listed in alphabetical order.**

[C42] V. Cerone, D. Piga, D. Regruto, R. Tóth, "Input-output LPV model identification with guaranteed quadratic stability", **Invited Paper**, *Proc. of the 16th IFAC Symposium on System Identification SYSID*, Brussels, Belgium, 2012. **In this paper the authors are listed in alphabetical order.**

[C43] V. Cerone, D. Piga, D. Regruto, "FIR approximation of linear systems from quantized records", **Invited Paper**, *Proc. of the 16th IFAC Symposium on System Identification SYSID*, Brussels, Belgium, 2012. **In this paper the authors are listed in alphabetical order.**

[C44] V. Cerone, D. Piga, D. Regruto, "Bounded-Error Identification of Linear Systems with Input and Output Backlash", **Invited Paper**, *Proc. of the IFAC Symposium on System Identification SYSID*, Brussels, Belgium, 2012. **In this paper the authors are listed in alphabetical order.**

[C45] V. Cerone, D. Piga, D. Regruto, S. Berehanu, "LPV identification of the glucose-insulin dynamics in Type I diabetes", **Invited Paper**, *Proc. of the 16th IFAC Symposium on System Identification SYSID*, Brussels, Belgium, 2012. **In this paper the first three authors are listed in alphabetical order.**

[C46] V. Cerone, D. Piga, D. Regruto, R. Tóth, "Minimal LPV state-space realization driven set-membership identification", *Proc. American Control Conference*, Montréal, Canada, 2012. **In this paper the authors are listed in alphabetical order.**

[C47] V. Cerone, D. Piga, D. Regruto, "Robust pole placement for plants with semialgebraic parametric uncertainty", *Proc. American Control Conference*, Montréal, Canada, 2012. **In this paper the authors are listed in alphabetical order.**

[C48] M. Canale, V. Cerone, D. Piga, D. Regruto, "Fast implementation of Model Predictive Control with guaranteed performance", *Proc. of the 50th IEEE Conference on Decision and Control*, Orlando, Florida, USA, 2011. **In this paper the authors are listed in alphabetical order.**

[C49] V. Cerone, D. Piga, D. Regruto, "Set-Membership identification of Hammerstein-Wiener systems", **Invited Paper**, *Proc. of the 50th IEEE Conference on Decision and Control*, Orlando, Florida, USA, 2011. **In this paper the authors are listed in alphabetical order.**

[C50] V. Cerone, D. Piga, D. Regruto, "Computational burden reduction in Set-membership Hammerstein system identification", *Proc. 18th IFAC World Congress*, Milan, Italy, 2011. **In this paper the authors are listed in alphabetical order.**

[C51] V. Cerone, D. Piga, D. Regruto, "Hammerstein systems parameters bounding through sparse polynomial optimization", *Proc. American Control Conference*, San Francisco, California, USA, 2011. **In this paper the authors are listed in alphabetical order.**

[C52] V. Cerone, D. Piga, D. Regruto, "Convex relaxation techniques for set-membership identification of LPV systems", *Proc. American Control Conference*, San Francisco, California, USA, 2011. **In this paper the authors are listed in alphabetical order.**

[C53] M. Milanese, L. Fagiano, D. Piga, "Control As a Key Technology for a Radical Innovation in Wind Energy Generation", *Proc. American Control Conference*, **Semi-plenary Lecture**, Speaker: M. Milanese, Baltimore, Maryland, USA, 2010.

[C54] V. Cerone, D. Piga, D. Regruto, "Set-membership EIV identification through LMI relaxation techniques", *Proc. American Control Conference*, Baltimore, Maryland, USA, 2010. **In this paper the authors are listed in alphabetical order.**

[C55] V. Cerone, D. Piga, D. Regruto, "Bounding the parameters of linear systems with stability constraints", *Proc. American Control Conference*, Baltimore, Maryland, USA, 2010. **In this paper the authors are listed in alphabetical order.**

[C56] L. Fagiano, M. Milanese, D. Piga, "High altitude wind energy generation using controlled tethered airfoils", *Proc. International Conference on Renewable Energy: Generation and Applications*, Al Ain, United Arab Emirates, 2010. **In this paper the authors are listed in alphabetical order.**

[C57] L. Fagiano, M. Milanese, D. Piga, "Kitenergy: a radical innovation in wind energy generation", *TechConnect World Conference and Expo 2010*, Anaheim, California, USA, 2010. **In this paper the authors are listed in alphabetical order.**

[C58] V. Cerone, D. Piga, D. Regruto, "Set-membership Identification of Block-Structured Nonlinear Feedback Systems", *Proc. of the 48th IEEE Conference on Decision and Control*, Shanghai, China, 2009. **In this paper the authors are listed in alphabetical order.**

[C59] V. Cerone, D. Piga, D. Regruto, "Parameter bounds evaluation for linear systems with output backlash", *Proc. of the 15th IFAC Symposium on System Identification SYSID*, Saint-Malo, France, 2009. **In this paper the authors are listed in alphabetical order.**

[C60] L. Fagiano, M. Milanese, D. Piga, "High altitude wind power generation for renewable energy cheaper than oil", *Sustainable development: a challenge for European research*, Brussels, Belgium, 2009. **In this paper the authors are listed in alphabetical order.**

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