

PERSONAL INFORMATION

Antonio Ferramosca



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Department of Management, Information and Production Engineering
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- **ORCID:** 0000-0003-3935-9734
- **Google scholar profile:**
<https://scholar.google.com/citations?user=tRpe9clAAAAJ&hl=es&oi=ao>
- **Scopus:** 26430530700
- **SSD:** ING/INF-04 Automatica

Sex Male | Date of birth 25/03/1982 | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

From February 2025
Today

Full Professor

University of Bergamo, Department of Management, Information and Production Engineering

- Teaching, Research
[University](#)

From April 2022
To January 2025

Associate Professor

University of Bergamo, Department of Management, Information and Production Engineering

- Teaching, Research
[University](#)

From July 2020
To March 2021

Assistant Professor (RTD-B)

University of Bergamo, Department of Management, Information and Production Engineering

- Teaching, Research
[University](#)

From January 2017
To June 2020

Associate Researcher

Argentinean Council of Scientific and Technological Research (CONICET)

- Research
[University](#)

From April 2018
To June 2020

Lecturer on contract

National Technological University (UTN), Argentina

- Teaching
[University](#)

From September 2013
To December 2016

Assistant Researcher

Argentinean Council of Scientific and Technological Research (CONICET)

- Research

University

From April 2012
To August 2013

Post-doctoral Fellow

Argentinean Council of Scientific and Technological Research (CONICET)

- Research

From May 2011
To December 2011

Post-doctoral Fellow

University of Seville, Department of Systems Engineering and Automatica, Spain

- Research

University

From May 2007
To April 2011

Ph.D. student

University of Seville, Department of Systems Engineering and Automatica, Spain

- Research

University

From November 2006
To April 2007

Research Assistant

University of Seville, Department of Systems Engineering and Automatica, Spain

- Research

EDUCATION AND TRAINING

From April 2007
to June 2011

Ph.D. award in Engineering

University of Seville, Department of Systems Engineering and Automatica, Spain

- Tesis Title: "MPC for tracking changing setpoints"
- Advisors: Prof. Eduardo Fernandez Camacho, Prof. Daniel Limon
- Grade: 10/10 summa cum laude
- Skills: Model Predictive Control, optimization, stability, invariance

From October 2004
to September 2006

M.Sc. award in Computer Engineering - Automation

University of Pavia, Italy

- Tesis Title: "Modellizzazione e controllo predittivo della fase di start-up di una centrale a ciclo combinato"
- Advisors: Prof. Lalo Magni
- Grade: 110/110

From October 2001
to July 2004

B.Sc. award in Computer Engineering

University of Pavia, Italy

- Tesis Title: "Modellizzazione di una centrale a ciclo combinato in linguaggio C"
- Advisors: Prof. Lalo Magni
- Grade: 110/110

WORK ACTIVITIES

Main projects
2025-Today

Harmony: Human-Assisted Robotic Manufacturing for Optimized new yield. Funded by: Regione Lombardia. PI.

- 2023-Today **AGeNT**: *leaning toward narrow-track vehicles autonomous guidance*. Funded by: Ministero dell'Università e della Ricerca (MUR) as a PRIN grant.
- 2022-Today **ANTHEM**: *AdvaNced Technologies for Human-centrEd Medicine. Spoke 1: Data and technology driven diagnoses and therapies. Pilot 1.3: Intelligent Artificial Pancreas for Children*. Funded by: Ministero dell'Università e della Ricerca (MUR).
- 2022-today **KOIOS**: *Knowledge Extraction, Machine Learning and other AI approaches for secure, robust, frugal, resilient and explainable solutions in Defence Applications*. Funded by: European Fund for Defense.
- 2020-2022 **WATCHMAN**: *Workload-reduction mAchine vision-based TeChnology Hub for MANufacturing*. Regione Lombardia
- 2019-2020 **PID2019-106212RB-C41**: *Safe operation of strategic infrastructure based on constrained optimization*. Universidad de Sevilla - Ministerio de Economía y Competitividad.
- 2019-2020 **PICT-2019-1794**: *Diseño de estrategias de control predictivo económico (EMPC) para el seguimiento de trayectorias y caminos variantes en el tiempo, en presencia de obstáculos. Aplicación al transporte de mercadería liviana (entrega de paquetes)*. CONICET, Mincyt Foncyt, Argentina.
- 2017-2019 **PICT-2016-3613**: *Herramientas para la optimización del desempeño económico de controladores predictivos en la industria de refinación de petróleo*, CONICET- Mincyt a través de Foncyt, Argentina.
- 2016-2018 **PICT-2016-0283**: *Stochastic Economic MPC applied to UAVs control*, CONICET- Mincyt Foncyt, Argentina.
- 2016-2018 **CNPq-486440/2013-3**: *Robust Control Strategies of TiltRotor UAVs for Load Transportation Tasks*, Universidade Federal de Minas Gerais - CNPq, Brasil.
- 2016-2018 **DPI 2016**: *Operación Económica Basada en Datos de Sistemas Cyber-Físicos*, University of Seville - Funded by Ministerio de Economía y Competitividad.
- 2013-2017 *Gestión Óptima de Edificios de Energía Cero*, University of Seville - Funded by Junta de Andalucía.
- 2013-2015 *Desarrollo de una herramienta para el monitoreo y diagnóstico de Aplicaciones de Control Predictivo Multivariable. Aplicación a controladores de tipo predictivo, en las columnas de destilación de la refinería de YPF S.A. en Ensenada.*, Funded by YPF S.A., Y-TEC S.A., CONICET
- 2009-2011 *Networked Predictive Control*, University of Seville - Funded by European Union.

Tutoring activities

- Ph.D. Thesis Advisor and Co-advisor**
- 2025-Today **Maria Sofia Cavallo**: *Switched Model Predictive Control for the Artificial Pancreas*
University of Bergamo, Italy
- 2023-Today **Advisor**
Nicola Licini: *Neural Networks based Model Predictive Control for the Artificial Pancreas*
University of Bergamo, Italy
- 2022-Today **Advisor**
Beatrice Sonzogni: *Data-driven Model Predictive Control for the Artificial Pancreas*
University of Bergamo, Italy
- 2021-2025 **Advisor**
Marco Polver: *Model Predictive Control based on Gaussian Processes*
University of Bergamo, Italy
- 2021-Today **Advisor**
Rodrigo Alarcón: *Learning-based Model Predictive control for smartgrids*
Universidad Nacional del Litoral, Santa Fe, Argentina
- 2018-2024 **Advisor**
Martin Alarcón: *Economic and Distributed Model Predictive control for smartgrids*
Universidad Nacional del Litoral, Santa Fe, Argentina
Advisor

- 2018-2023 **Marcelo Alves dos Santos: MPC for UAV autonomous piloting**
Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
Co-advisor
- 2017-2023 **Pablo Abuin: Model Predictive Control Algorithms for Artificial Pancreas**
Universidad Nacional del Litoral, Santa Fe, Argentina
Co-advisor
- 2017-2020 **José Maria Vergara Dietrich: Economic Model Predictive control for solar plants**
Unversidade Federal de Santa Catarina, Florianopolis, Brazil
Co-advisor
- 2015-2019 **Agustina D'Jorge: Robust and Stochastic Economic MPC**
Universidad Nacional del Litoral, Santa Fe, Argentina
Advisor

Master Degree Theses

40 Master's degree theses

Awards

Best conference paper: 18th IFAC Conference on Control Applications and Optimization. *Artificial pancreas under periodic MPC for trajectory tracking: handling circadian variability of insulin sensitivity* - authors Pablo Abuin, Antonio Ferramosca, Chiara Toffanin, Lalo Magni, Alejandro H. Gonzalez

Editorial activity

From 2021

International Journals

Associate Editor

Optimal Control Application and Methods, Wiley.
Journal of Control, Automation, and Electrical Systems

2023-2025

2018

2016-2020

Conferences

Italian Conference on Automatic Control, SIDRA: 2023, 2024, 2025
6th IFAC Conference on Nonlinear Model Predictive Control, NMPC'18
Argentinean Conference on Automatic Control, AADECA: 2016, 2018, 2020

Invited presentations

05/2025 Model Predictive Control for tracking

University of Pavia, Italy

06/2023 Model Predictive Control for the Artificial Pancreas

University of Seville, School of Engineering, Seville, Spain

05/2023 Model Predictive Control for the Artificial Pancreas

Panorama Diabete, Italian Diabetes Society conference

11/2019 Adaptive Control and Nonlinear Systems

National Technological University (UTN), Santa Fe, Argentina

09/2019 Economic Model Predictive Control

University of Seville, School of Engineering, Seville, Spain

04/2019 Impulsive MPC for Glucose Regulation in T1DM patients

National Technological University (UTN), Reconquista, Santa Fe, Argentina

02/2018 Fundamentals of Model Predictive Control

University of Minas Gerais, School of Engineering, Belo Horizonte, Brazil

11/2016 Economic Model Predictive Control

University of Seville, School of Engineering, Seville, Spain

04/2016 Fundamentals of Model Predictive Control

University of Santa Catarina, School of Engineering, Florianopolis, Brazil

05/2015 Multi-model Economic Model Predictive Control

University of Seville, School of Engineering, Seville, Spain

03/2013 Distributed Model Predictive Control

University of Sao Paulo, School of Engineering, Sao Paulo, Brazil

09/2009 MPC for tracking

University of Wisconsin-Madison, Depart. Of Chemical and Biochemical Engineering, Madison, WI, USA

Grants

Harmony: Human-Assisted Robotic Manufacturing for Optimized new yield. Funded by: Regione Lombardia. PI.

ANTHEM: *AdvaNced Technologies for Human-centrEd Medicine. Spoke 1: Data and technology driven diagnoses and therapies. Pilot 1.3: Intelligent Artificial Pancreas for Children.* Funded by: Ministero dell'Università e della Ricerca (MUR).

AGeNT: *leaning toward narrow-track vehicles autonomous guidance.* Funded by: Ministero dell'Università e della Ricerca (MUR) as a PRIN grant.

60FERR22: Intelligent Artificial Pancreas, a learning-based MPC approach. University of Bergamo, Departmental funds.

PICT-2019-1794: Diseño de estrategias de control predictivo económico (EMPC) para el seguimiento de trayectorias y caminos variantes en el tiempo, en presencia de obstáculos. Aplicación al transporte de mercadería liviana (entrega de paquetes). CONICET- Mincyt Foncyt, Argentina.

PID-UTN-CCUTNRQ0006540: Design of IA algorithms for images inspection. Application to rational shepherding. PID UTN, Argentina.

PID-UTN-ENUTNRQ0005536: Modelling of an house Microgrid. Feasibility study and design of automatic control strategies. PID UTN, Argentina. Project Leader.

PICT-2016-0283: Stochastic Economic MPC applied to UAVs control, CONICET- Mincyt Foncyt, Argentina.

ADDITIONAL INFORMATION

Publications

Total number of publications in peer-review journals: 64

Total number of citations (Scopus): 2038

H index (Scopus): 23

Relevant publications (5-10 publications)

1. Ferramosca, A., Limon, D., Alvarado, I., Alamo, T., & Camacho, E. F. (2009). MPC for tracking with optimal closed-loop performance. *Automatica*, 45(8), 1975-1978.
2. Ferramosca, A., Limón, D., Alvarado, I., & Camacho, E. F. (2013). Cooperative distributed MPC for tracking. *Automatica*, 49(4), 906-914.
3. Ferramosca, A., Limon, D., & Camacho, E. F. (2014). Economic MPC for a changing economic criterion for linear systems. *IEEE Transactions on Automatic Control*, 59(10), 2657-2667.
4. Ferramosca, A., Limon, D., González, A. H., Odloak, D., & Camacho, E. F. (2010). MPC for tracking zone regions. *Journal of Process Control*, 20(4), 506-516.
5. Limon, D., Ferramosca, A., Alvarado, I., & Alamo, T. (2018). Nonlinear MPC for tracking piece-wise constant reference signals. *IEEE Transactions on Automatic Control*, 63(11), 3735-3750.
6. Marchetti, A. G., Ferramosca, A., & González, A. H. (2014). Steady-state target optimization designs for integrating real-time optimization and model predictive control. *Journal of Process Control*, 24(1), 129-145.
7. Ferramosca, A., Limon, D., González, A. H., Alvarado, I., & Camacho, E. F. (2012). Robust MPC for tracking zone regions based on nominal predictions. *Journal of Process Control*, 22(10), 1966-1974.
8. Rivadeneira, P. S., Ferramosca, A., & González, A. H. (2017). Control strategies for nonzero set-point regulation of linear impulsive systems. *IEEE Transactions on Automatic Control*, 63(9), 2994-3001.
9. Ferramosca, A., González, A. H., & Limon, D. (2017). Offset-free multi-model economic model predictive control for changing economic criterion. *Journal of Process Control*, 54, 1-13.
10. González, A. H., Ferramosca, A., Bustos, G. A., Marchetti, J. L., Fiacchini, M., & Odloak, D. (2014). Model predictive control suitable for closed-loop re-identification. *Systems & Control Letters*, 69, 23-33.

A complete list of publications can be found at <http://www.antonioferramosca.com/publications/>

According to the law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Antonio Ferramosca

