

MIRKO MAZZOLENI'S CURRICULUM VITAE

UPDATED: 3 AUGUST 2022

CURRENT POSITION

Fixed-term Assistant professor (RTD-B)

November 2021 - Today

DIPARTIMENTO DI INGEGNERIA GESTIONALE, DELL'INFORMAZIONE E DELLA PRODUZIONE, UNIVERSITÀ DEGLI STUDI DI BERGAMO, ITALY

PREVIOUS POSITIONS

Fixed-term junior Assistant professor (RTD-A)

October 2019 - November 2021

DIPARTIMENTO DI INGEGNERIA GESTIONALE, DELL'INFORMAZIONE E DELLA PRODUZIONE, UNIVERSITÀ DEGLI STUDI DI BERGAMO, ITALY

Post-doctoral fellow

March 2018 - October 2019

DIPARTIMENTO DI INGEGNERIA GESTIONALE, DELL'INFORMAZIONE E DELLA PRODUZIONE, UNIVERSITÀ DEGLI STUDI DI BERGAMO, ITALY

INDUSTRIAL RESEARCH ACTIVITY

R&D Electronic - Software Engineer Internship

February 2014 - August 2014

SAME DEUTZ FAHR GROUP

Developing diagnostic software for ECU in automotive field with the C programming language, using the CAN and UDS protocols. Performing integration and beta testing on the diagnostic functionalities of the machine.

EDUCATION

Ph.D. in Engineering and Applied Sciences

October 2014 - October 2017

UNIVERSITÀ DEGLI STUDI DI BERGAMO, ITALY

Thesis title: "Learning meets control: data analytics for dynamical systems" (in English)

Advisor: Prof. Fabio Previdi, Grade: High

Reviewers: Prof. Michel Verhaegen (TU Delft, The Netherlands), Prof. Simone Garatti (Politecnico di Milano, Italy)

Master of Science in Computer Engineering

September 2011 - March 2014

UNIVERSITÀ DEGLI STUDI DI BERGAMO, ITALY

Thesis title: "Fault detection and isolation for electromechanical actuators in aerospace application using pattern recognition methods" (in English)

Advisor: Prof. Fabio Previdi (in collaboration with UmbraGroup S.p.A.), Grade: *110/110 summa cum laude*

Bachelor of Science in Computer Engineering

September 2009 - December 2011

UNIVERSITÀ DEGLI STUDI DI BERGAMO, ITALY

Thesis title: "Controllo in LabView di un banco motore in CC simulato" (in Italian)

Advisor: Prof. Andrea Cataldo, Grade: *106/110*

VISITING APPOINTMENTS

January-February 2020 - (1 month)

Visiting researcher at Department of Mechanical Engineering - Control Systems Technology, Eindhoven University of Technology (host: Prof. Tom Oomen).

ACADEMIC RESEARCH ACTIVITY

1. Machine learning methods for system identification

In the last decade, a cross-fertilization began between the System Identification and the Statistical Learning communities. This led firstly to the introduction of regularization techniques in system identification, and, more recently, to the application of kernel methods to dynamical systems learning. These ideas immediately became state-of-art approaches for many system identification tasks. Following this rationale, this line of research aims to leverage methodologies born under the machine learning light and employing them for system identification cause. This could also lead to new ideas and rich debate between different researchers. Methodological extensions in this area include:

- Non parametric kernel methods for system identification using semi-supervised techniques [J11] [J08] [J05] [J02] [C22] [C21] [C19] [C17] [C12] [C11] [C24] [B01] [T01];
- Non parametric kernel methods for continuous-time system identification [J06] [C25];
- Application of machine learning and Gaussian processes [J01] [C02] [C16];

- Other methods [C20], [C27].

2. Fault diagnosis and condition monitoring algorithms

Fault diagnosis is an established field of control systems. However, due to the intrinsic characteristics of the processes being monitored, fault detection and health monitoring methodologies need to be adapted for the particular problem at hand. The aim of this research area is to develop fault detection and condition assessment algorithms for industrial applications, mainly via data-driven or signal-based techniques, drawing from fields such as statistics, machine learning and system identification. This field has nowadays received increased attention under various synonyms such as predictive maintenance, and it is expected to be even more important with the widespread of sensor technologies. The research activity in this area is specifically focused on:

- Fault detection and condition monitoring of electro-mechanical actuators in aerospace environment [B02] [J04], [J03] [C18] [C15] [C14] [C13] [C08] [C07] [C06] [C01];
- Maintenance of industrial machines [C26] [C18] [C03] [C28] [C29] [JS02].
- Other diagnosis applications [C30]

3. Other research activities (with at least one publication)

- Sentiment analysis [C10];
- Modeling and control of mechanical systems [C05] [C04] [CS23];
- Business analytics [C09];
- Application of machine learning and data science [J07] [J09] [J10].
- Preference-based optimization [JS01]

TEACHING ACTIVITY

Lecturer

Course:	Methods of fault diagnosis (in English) Ph.D. course
Academic Year:	2021/2022
Ph.D. Program:	Engineering and Applied Sciences
Class Hours:	12
University:	Università degli Studi di Bergamo
Course:	Advanced methods for system identification (in English) Ph.D. course
Academic Year:	2021/2022
Ph.D. Program:	Engineering and Applied Sciences
Class Hours:	20
University:	Università degli Studi di Bergamo
Course:	Digital technologies for the services - data science (in Italian) Master
Academic Year:	May - June 2022
School:	Servitization nel settore automotive
Class Hours:	8
University:	Università del Piemonte Orientale
Course:	Dynamic Systems Identification (in English) M.Sc. course
Academic Year:	2021/2022
Class Hours per Year:	12 - 6 c.f.u.
University:	Università degli Studi di Bergamo
Course:	Control systems Engineering (in Italian) B.Sc. course
Academic Year:	2021/2022
Class Hours per Year:	16 - 6 c.f.u.
University:	Università degli Studi di Bergamo
Course:	Model Identification and Data Analysis (in Italian) M.Sc. course
Academic Year:	2021/2022
Class Hours per Year:	32 - 6 c.f.u.
University:	Università degli Studi di Bergamo
Course:	Data science and automation (in English) M.Sc. course
Academic Year:	2021/2022
Class Hours per Year:	32 - 6 c.f.u.
University:	Università degli Studi di Bergamo

- Course: Applicazioni di predictive maintenance in ambito industriale (in Italian)
Master
- Academic Year: 16 October 2020
School: SdM School of Management, Master Fabbrica Intelligente
Class Hours: 4
University: Università degli Studi di Bergamo
- Course: Introduzione all'intelligenza artificiale, machine learning e data science (in Italian)
Master
- Academic Year: 18 January 2020
School: SdM School of Management, Master Fabbrica Intelligente
Class Hours: 4
University: Università degli Studi di Bergamo
- Course: Machine Learning in Advanced Manufacturing (in English)
Summer school
- Academic Year: 2020/2021
School: China-Italy Lab on Advanced Manufacturing (CI-LAM)
Class Hours: 3
University: Università degli Studi di Bergamo (virtual)
- Course: Advanced methods for system identification (in English)
Ph.D. course
- Academic Year: 2020/2021
Ph.D. Program: Engineering and Applied Sciences
Class Hours: 20
University: Università degli Studi di Bergamo (virtual)
- Course: Forecasting and learning for dynamic decision-making (in English, co-taught with M. Tanelli, S. Formentin, V. Breschi)
Ph.D. course
- Academic Year: 2020/2021
Ph.D. Program: Data analytics and decision sciences
Class Hours: 1
University: Politecnico di Milano (virtual)
- Course: Model Identification and Data Analysis (in Italian)
M.Sc. course
- Academic Year: 2020/2021
Class Hours per Year: **48 - 6 c.f.u.**
University: Università degli Studi di Bergamo
- Course: Advanced methods for system identification (in English)
Ph.D. course
- Academic Year: 2019/2020
Ph.D. Program: Engineering and Applied Sciences
Class Hours: 20
University: Università degli Studi di Bergamo (virtual)
- Course: Model Identification and Data Analysis (in Italian)
M.Sc. course
- Academic Year: 2019/2020
Class Hours per Year: **48 - 6 c.f.u.**
University: Università degli Studi di Bergamo
- Course: Data science and automation (in English)
M.Sc. course
- Academic Year: 2019/2020
Class Hours per Year: **32 - 6 c.f.u.**
University: Università degli Studi di Bergamo
- Course: Model Identification and Data Analysis (in Italian)
M.Sc. course
- Academic Year: 2019/2020
Class Hours per Year: **32 - 6 c.f.u.**
University: Università degli Studi di Bergamo
- Course: Data science and automation (in English)
M.Sc. course
- Academic Year: 2019/2020
Class Hours per Year: **32 - 6 c.f.u.**
University: Università degli Studi di Bergamo

Course: Model Identification and Data Analysis (in Italian)
M.Sc. course
Academic Year: 2018/2019
Class Hours per Year: **48 - 6 c.f.u.**
University: Università degli Studi di Bergamo

Course: Model Identification and Data Analysis (in Italian)
M.Sc. course
Academic Year: 2017/2018
Class Hours per Year: **48 - 6 c.f.u.**
University: Università degli Studi di Bergamo

Tutorial classes

Course: Dynamic system identification (in English)
M.Sc. course - Teacher: Prof. A. Ferramosca
Academic Year: 2020/2021
Class Hours per Year: **12**
University: Università degli Studi di Bergamo

Course: Control System Engineering (in Italian)
M.Sc. course - Teacher: Prof. M. Ermidoro
Academic Year: 2016/2017
Class Hours per Year: **12**
University: Università degli Studi di Bergamo

Course: Model Identification and Data Analysis (in Italian)
M.Sc. course - Teacher: Prof. S. Formentin
Academic Year: 2014/2015 - 2015/2016 - 2016/2017
Class Hours per Year: **12 - 12 - 12**
University: Università degli Studi di Bergamo

Industrial and other classes

Course: Predictive maintenance (in Italian)
Year: April 2022
Class Hours: **32**
Company: SALF s.p.a.

Course: Fondamenti di automatica (in Italian)
Year: February-March 2022
Class Hours: **30**
Company: Istituto Tecnico Superiore (I.T.S.) Lombardia Meccatronica.

Course: Data science (in Italian)
Year: September 2021
Class Hours: **24**
Company: SMI group s.p.a.

Course: Fondamenti di automatica (in Italian)
Year: April-May 2021
Class Hours: **30**
Company: Istituto Tecnico Superiore (I.T.S.) Lombardia Meccatronica.

Course: A practical introduction to Artificial Intelligence (in Italian)
Year: March 2021
Class Hours: **16**
Company: Consorzio TCN s.r.l.

Course: Statistical signal analysis (in Italian)
Year: November 2020
Class Hours: **16**
Company: Consorzio TCN s.r.l and FCA group.

Course: Big data and machine learning (in Italian)
Year: November 2020
Class Hours: **24**
Project: Veneto region project A.G.E.: "Apprendimento, Generazioni, Evoluzione",
Cod. Prog.: 2749-0001-1315-2019
Company: Eduforma s.r.l and A&M Projects s.n.c.

Course: Fondamenti di automatica (in Italian)
 Year: June-July 2020
 Class Hours: **30**
 Company: Istituto Tecnico Superiore (I.T.S.) Lombardia Meccatronica.

Course: A practical introduction to Artificial Intelligence (in Italian)
 Year: September 2019
 Class Hours: **16**
 Company: Consorzio TCN s.r.l.

Course: A practical introduction to Artificial Intelligence (in Italian)
 Year: January 2019
 Class Hours: **16**
 Company: Consorzio TCN s.r.l.

Ph.D. Theses Advisor or Co-Advisor

- *Preference-based reinforcement learning for control*, Ph.D. program in Engineering and Applied Sciences, Università degli Studi di Bergamo. Student: D. Previtali, October 2019 - October 2022.
- *Design of control methods from nonparametric models*, Ph.D. program in Engineering and Applied Sciences, Università degli Studi di Bergamo. Student: N. Valceschini, October 2019 - October 2022.
- *Regularized kernel-based learning for system identification*, Ph.D. program in Engineering and Applied Sciences, Università degli Studi di Bergamo. Student: M. Scandella, November 2019.
- *Health Monitoring of Electro-Mechanical Actuators for primary flight surfaces*, Ph.D. program in Engineering and Applied Sciences, Università degli Studi di Bergamo. Student: Y. Maccarana, September 2018.

M.Sc. Theses Advisor or Co-Advisor

- *Identificazione di sistemi dinamici con metodi kernel e tecniche di graph learning*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: P. Boni. Academic Year: 2021/2022.
- *Diagnosi robusta dei guasti tramite approcci model-based e applicazione ad un attuatore aerospaziale*, M.Sc. program in Mechanical Engineering, Università degli Studi di Bergamo. Student: D. Crippa. Academic Year: 2020/2021.
- *Mixed sensitivity oriented regularization for linear system identification*, M.Sc. program in Management Engineering, Università degli Studi di Bergamo. Student: G. Vedovati. Academic Year: 2020/2021.
- *Progettazione di un metodo di rilevazione dei guasti con approccio data-driven basato su identificazione ai sottospazi (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: G. Viganò. Academic Year: 2020/2021.
- *Diagnosi di guasti per cuscinetti a sfera con metodi di Compressed Sensing (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: N. Belotti. Academic Year: 2019/2020.
- *Modellistica e diagnosi dei guasti di un attuatore elettromeccanico per superfici secondarie di controllo del volo (in Italian)*, M.Sc. program in Mechanical Engineering, Università degli Studi di Bergamo. Students: E. Jacobelli, A. Cordoni. Academic Year: 2019/2020.
- *Metodi di riduzione dimensionale per la stima non parametrica e per la classificazione di particelle leggere (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: G. Dantoni. Academic Year: 2018/2019.
- *Sviluppo e validazione sperimentale di algoritmi di manutenzione predittiva per macchine soffiatrici (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: J. Ghisalberti. Academic Year: 2018/2019.
- *Sviluppo e validazione di un metodo di diagnosi e monitoraggio dei guasti per centri di lavoro ad alte prestazioni (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: L. Pitturelli. Academic Year: 2018/2019.
- *Sviluppo sperimentale di un metodo model-based di diagnosi dei guasti per attuatori elettromeccanici in ambito aerospaziale (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: S. Giusso. Academic Year: 2018/2019.
- *Identificazione e sintesi di Dynamic Texture attraverso approcci data-driven (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Students: D. Previtali, N. Valceschini. Academic Year: 2018/2019.

- *Algoritmi di Health Monitoring per la manutenzione predittiva di attuatori elettromeccanici di aeromobili (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: A. Russo. Academic Year: 2017/2018.
- *Modeling and identification of a hydraulic thermoforming press for advanced parallelism control (in English)*, M.Sc. program in Mechanical Engineering, Università degli Studi di Bergamo. Student: L. Covelli. Academic Year: 2017/2018.
- *Identificazione Semisupervisionata per modelli NARX (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: G. Bergamelli. Academic Year: 2016/2017.
- *Progettazione e sviluppo di un software per l'archiviazione e l'interrogazione di dati genetici (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: V. Uberti, A. Hu. Academic Year: 2016/2017.
- *Identificazione Semisupervisionata di modelli N-FIR (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: M. Scandella. Academic Year: 2015/2016.
- *Sviluppo di un algoritmo non supervisionato per l'estrazione delle emozioni fondamentali da dati testuali (in Italian)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: G. Breviaro. Academic Year: 2015/2016.
- *Modeling, identification and control of a test bench for fault detection of aeronautical electro-mechanical actuators (in English)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: Y. Maccarana. Academic Year: 2014/2015.
- *Recommender systems for digital magazines: algorithms analysis and design (in English)*, M.Sc. program in Computer Engineering, Università degli Studi di Bergamo. Student: D. Servalli. Academic Year: 2014/2015.

UNIVERSITY SERVICES

- President of the scientific committee of the engineering library (2022-Today).
- Member of the Study committee of the Computer Engineering degree (2019 - Today).

INVITED TALKS

- *Fault diagnosis strategies for the design and maintenance of industrial products.*
Higher Polytechnic School University of Seville, 2021.
- *Designing diagnostic algorithms for reliable electromechanical flight actuators on more electric aircrafts.*
VIII conference of R + D + i and V conference of the doctorate program in Installations and Systems for Industry (course 2021/22) Higher Polytechnic School, University of Seville, 2021.

PARTICIPATION IN REGIONAL, NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

- *KOIOS: Knowledge Extraction, Machine Learning and other AI approaches for secure, robust, frugal, resilient and explainable solutions in Defence Applications*
Period: 08/2022 - Today.
Total budget: 9.98 M€ - UniBg budget: 343k€
Partners (14): CT Ingenieros aeronauticos de automocion e industriales sl (coordinator - Spain), Applied intelligence analytics (Ireland), Barcelona supercomputing centre - centro nacional de supercomputacion (Spain), Foundation for research and technology hellas (Greece), Laboratoire national de metrologie et d'essais (France), Mitiga solutions sl (Spain), NTT data spain (Spain), Office national d'etudes de recherches Aérospatiales (France), Stichting maritiem research instituut nederland (Netherlands), Technische universiteit eindhoven (Netherlands), Totalforsvarets forskningsinstitut (Sweden), Università degli studi di bergamo (Italy), Universitaet der bundeswehr muenchen (Germany), Vocapia (France).
Funded by: **European Union. European Defence Fund (EDF) 2021.** Topic title: Frugal learning for rapid adaptation of AI systems.
Role: Leader of the University of Bergamo activities.
- *National center for sustainable mobility*
Period: 2022 - Today.
Funded by: **Italy National Recovery and Resilience Plan, Next Generation EU.** Piano Nazionale Ripresa e Resilienza (PNRR).
Role: Leader of Pilot 1.3 (User behaviours) of the Spoke 5 (Active mobility and light vehicles).

- *SLIM: Smart Living in Manufacturing*
 Period: 2021 - Today.
 Funded by: **Regione Lombardia**. Program interventions for economic recovery.
 Role: Criticality identification and possible HW and SW solutions for sensor and virtual machine interfacing.
 Literature analysis for definition of problems and possible solutions within the scope industrial diagnostics for automated production lines.
- *REPRISE: Reliable Electro-mechanical actuator for PRImary SurfAcE with health monitoring*
 Period: 7/2016 - Today.
 Total budget: 995k€ - UniBg budget: 263k€
 Partners: Piaggio Aerospace s.p.a., UmbraGroup s.p.a, Zettlex l.t.d., Università degli Studi di Bergamo.
 Funded by: **European Union (H2020)** Clean Sky 2 Joint Technology Initiative.
 Role: Responsible for the Work Packages WP3 - Test Phase I; WP4 - Failure prevention technology selection.
- *HOLMES: Health On Line Monitoring for Electromechanical actuator Safety*
 Period: 1/2014 - 12/2016.
 Total budget: 490k€ - UniBg budget: 136k€
 Partners: Liebherr Aerospace GmbH, UmbraGroup s.p.a., Università degli Studi di Bergamo.
 Funded by: **European Union (FP7)** Clean Sky Joint Technology Initiative.
 Role: Responsible for the Work Packages WP4 - Modeling approach; WP5 - Realization of health monitoring software.
- *Health monitoring of an axis of an industrial CNC machining*
 Period: 06/2018 - 7/2019.
 Partners: Mandelli s.p.a., UmbraGroup s.p.a., Università degli Studi di Bergamo.
 Funded by: **Italian Ministry for the Economic Development (MiSE)**.
- *WATCHMAN: Workload-reduction mAchine vision-based TeChnology Hub for MANufacturing*
 Period: 02/2020 - Today.
 Total budget: 6.601.061€ - UniBg budget: 1.106.000€
 Partners: Consorzio Intellimech, Brembo s.p.a., Fincons Group, Salf s.p.a. Laboratorio Farmacologico, Smart Robots s.r.l., SorintLab s.p.a., Università degli Studi di Bergamo, Vision s.r.l.
 Funded by: **Regione Lombardia**.
 Role: Responsible for investigating the state of the art and implementation of machine vision algorithms for detecting faults in mechanical components.
- *TELECOVID: Platform for tele-monitoring with remote biosensors and tele-consultation for COVID-19 and fragile chronic patients.*
 Period: 04/2020 - 10/2020.
 Partners: ASST Papa Giovanni XIII, ASST Bergamo EST, Comftech s.r.l., Mediaclinics s.r.l.
 Funded by: **Regione Lombardia**.
 Role: Support for data analysis and platform development.
- *SMART4CPPS: Smart Solutions for Cyber-Physical Production Systems*
 Period: 04/2018 - October 2020.
 Total budget: 7405k€ - UniBg budget: 694k€
 Partners: C.M.S. Costruzioni macchine speciali s.p.a., Ratti s.p.a., Scaglia Indeva s.p.a., Quantra s.r.l., Porta Solutions s.p.a., Cavagna Group (OMECA), Camozzi s.p.a., Balance Systems s.r.l., TXT e-Solutions s.p.a., Fincons s.p.a., Politecnico di Milano, Consiglio Nazionale delle Ricerche - Istituto di Tecnologie Industriali e Automazione, Università degli Studi di Bergamo, Università degli Studi di Brescia.
 Funded by: **Regione Lombardia**.
 Role: Responsible for the following pilot projects Pilot 1 - Design of Health monitoring algorithms for linear actuators and fluid valves.
- *ADAPTIVE: A modular and adaptive approach to the design of digital factories.*
 Period: 11/2015 - 01/2017.
 Total budget: 11.100k€
 Partners: Cosberg s.p.a., Scaglia Indeva s.p.a., Masmec s.p.a., Balluff Automation s.r.l., Copan Group s.p.a., Università degli Studi di Bergamo, Università degli Studi di Brescia, Consorzio Intellimech.
 Funded by: **Italian Ministry for the Instruction, University and Research (MIUR)**.
 Role: Development of manufacturing fault diagnostics methods using model-free and machine learning methodologies.
- *SMART LIVING 4 ALL: Improving safety at home for children and elderly*
 Period: 11/2017 - 5/2019.
 Total budget: 1237k€ - UniBg budget: 293k€
 Partners: ComfTech s.r.l., Mediaclinics s.r.l., Foppapedretti s.p.a., Università degli Studi di Bergamo.
 Funded by: **Regione Lombardia**.
 Role: Implementation of the crying analysis algorithm for babies with Tensorflow technology.

- *INTERNET OF BEAUTY: Smart and safe appliances for smart living*
 Period: 11/2017 - 5/2019.
 Total budget: 1125K€
 Partners: Tenacta Group s.p.a., FAE Technology s.p.a., Consorzio Intellimech, Università degli Studi di Bergamo.
 Funded by: **Regione Lombardia**.
 Role: Support for the development of prototypes and the algorithm for assigning appliance configuration parameters.

RESEARCH GRANTS OWNER

- *New methods in system identification and control using machine learning techniques*. Funded by: Department of Management, Production and Information Engineering, University of Bergamo, 13.946,34 €, 2021.

ROLES AT INTERNATIONAL CONFERENCES

- *International Conference on Mechanics, Mechatronics, Materials and Civil Engineering 2022 (3MCE'2022)*.
 Period: Tetouan, Morocco, September 10, 2022.
 Role: member of the scientific committee.

TECHNOLOGICAL TRANSFER ACTIVITIES

Industrial collaborations

- *Descriptive analysis of alarms and stop reasons for a shrinkwrapper machine*, within a research project between Università degli Studi di Bergamo and SmiGroup s.p.a. (San Giovanni Bianco - BG, Italy), 2022.
- *Control algorithms for batteries management*, within a research project between Università degli Studi di Bergamo and Eldor s.p.a. (Orsenigo - CO, Italy), 2022-Today.
- *Enhancement of the control algorithms for an electro-mechanical actuator*, within a research project between Università degli Studi di Bergamo and Leonardo s.p.a. (La Spezia - SP, Italy), 2022-Today.
- *Leak detection algorithms for a smart valve prototype*, within a research project between Università degli Studi di Bergamo and Reetronics s.r.l. (Seriante - BG, Italy), 2022-Today.
- *Design of a control system for blood extractor devices*, within a research project between Università degli Studi di Bergamo and Delcon s.r.l. (Grassobbio - BG, Italy), 2020-Today.
- *Predictive Maintenance System for beverage packaging machines*, within a research project between Università degli Studi di Bergamo and SmiGroup s.p.a. (San Giovanni Bianco - BG, Italy), 2018-2020.
- *Evaluation of computational burden for CNC trajectory planning algorithms*, within a research project between Università degli Studi di Bergamo and DDX s.r.l. (Brembate Sopra - BG, Italy), 2018.
- *Development of a methodological procedure for tuning the control system of a thermoforming press*, within a research project between Università degli Studi di Bergamo and Persico s.p.a. (Nembro - BG, Italy), 2017.
- *Estimation of sliding gates mass using inertial sensors and motor measurements*, within a research project with Università degli Studi di Bergamo and BFT s.p.a. (Schio - VI, Italy), 2017.
- *Fault detection of strand ropes via image processing techniques*, within a research project between Università degli Studi di Bergamo and Vinati s.r.l. (Nave - BS, Italy), 2017.
- *Estimation of sliding gates position using inertial sensors*, within a research project between Università degli Studi di Bergamo and BFT a.p.a. (Schio - VI, Italy), 2016.
- *Technological scouting of range finder sensors*, within a research project between Università degli Studi di Bergamo and BFT s.p.a. (Schio - VI, Italy), 2016.
- *Advanced business analytics with system identification techniques*, within a research contract between Politecnico di Milano, E-Novia s.p.a. (Milan, Italy) and Pastificio Rana s.p.a. (Verona - Italy), 2015
- *Development of a recommender system for digital kart articles*, within a research contract between University of Bergamo and E-Novia s.p.a. (Milan, Italy), 2015
- *Development of drug craving therapy algorithm with brain-computer interfaces*, within a research contract between University of Bergamo and Relazione Impresa Sociale s.r.l. (Milan, Italy), 2015

Research contracts

- *Sviluppo di algoritmi di health monitoring per la manutenzione predittiva*, research project: SMART4CPPS, 10K€, 2018.
- *Sviluppo preliminare di algoritmi per la change-point detection nell'ambito della diagnostica di guasti*, funded by: Centro di Ateneo per la Gestione dell'Innovazione e del Trasferimento Tecnologico (GITT), Università degli Studi di Bergamo, 1.02k€, 2018.
- *Support to the execution of the tests at Umbra Cuscinetti, Foligno*, research project: REPRISE, 5.5k€, 2017.
- *Sviluppo di metodi di diagnostica model free con applicazione a dispositivi meccatronici*, research project: Adaptive and Modular Approaches for the Digital enabled factory, 10k€, 2016.
- *Sviluppo di metodi di diagnostica dei guasti in ambito manifatturiero usando metodologie di machine learning*, research project: Adaptive and Modular Approaches for the Digital enabled factory, 7k€, 2015.

Entrepreneurial activity

- *Co-founder of the AISent S.r.l. start-up*. The company is specialized in engineering artificial intelligence solutions. Website: <https://aisent.io/>, March 2018.

PARTICIPATION TO SCIENTIFIC EVENTS

Presentation at international conferences/workshops

- 19th IFAC Symposium on System Identification (SYSID), 2021 (virtual).
- 21st IFAC World Congress, 2020 (virtual).
- 17th EUCA European Control Conference (ECC), May 12-15, 2020 (virtual).
- 13th IFAC Workshop on Adaptive and Learning Control Systems (ALCOS), December 4-6, 2019.
- 27th ERNSI Workshop, Maastricht, The Netherlands, September 22-25, 2019.
- 57th IEEE Conference on Decision and Control (CDC), Miami Beach, Florida, December 17-19 2018.
- 26th ERNSI Workshop, Cambridge, UK, September 23-26, 2018.
- 2nd IEEE Conference on Control Technology and Applications (CCTA), Copenhagen, Denmark, 2018.
- 18th IFAC Symposium on System Identification (SYSID), Stockholm, Sweden, July 9-11, 2018.
- 26th Mediterranean Conference on Control and Automation (MED), Zadar, Croatia, June 19-22, 2018.
- 16th EUCA European Control Conference (ECC), Limassol, Cyprus, June 12-15, 2018.
- 3rd Nonlinear System Identification Benchmarks Workshop, Liege, Belgium, April 9-13, 2018.
- 20th IFAC World Congress, Toulouse, France, July 9-14, 2017.
- IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM), Munich, Germany, July 3-7, 2017.
- 42nd IEEE Industrial Electronics society annual CONFERENCE (IECON), Florence, Italy, October 24-26, 2016.
- 9th IFAC Symposium on Biological and Medical Systems (BMS), Berlin, Germany, August 31-Sept. 2, 2015

Presentation to national conferences/workshops

- Annual Conference of the Italian Society of Teachers and Researchers in Automatic Control (S.I.D.R.A.), virtual conference (Catania), September 8-10, 2021.
- Annual Conference of the Italian Society of Teachers and Researchers in Automatic Control (S.I.D.R.A.), virtual conference (Cagliari), September 9-11, 2020.
- Annual Conference of the Italian Society of Teachers and Researchers in Automatic Control (S.I.D.R.A.), Ancona, Italy, September 11-13, 2019.
- Annual Conference of the Italian Society of Teachers and Researchers in Automatic Control (S.I.D.R.A.), Florence, Italy, September 12-14, 2018.
- Annual Conference of the Italian Society of Teachers and Researchers in Automatic Control (S.I.D.R.A.), Milan, Italy, September 11-13, 2017. **Second place for best poster presentation.**
- Annual Conference of the Italian Society of Teachers and Researchers in Automatic Control (S.I.D.R.A.), (Attendance), Bergamo, Italy, September 8-10, 2014.

EDITORIAL ACTIVITY

Reviews

I served as a reviewer for the journals Automatica, Mechatronics, Control Engineering Practice, IEEE Transactions on Automatic Control, IEEE Transactions on Industrial Electronics, IEEE Transactions on Instrumentation and Measurement, System and Control Letters, Medical Engineering and Physics and for several IFAC/IEEE conferences.

Memberships

- I am member of the Institute of Electrical and Electronics Engineers (IEEE), Control Systems Society (CSS), Signal Processing Society (SPS) and Computational Intelligence (CIS) affiliations.

POST-LAUREA COURSES

- *Data-driven model learning of dynamical systems*, Teachers: X. Bambois, P. Van den Hof, L. Bako, Ecole Centrale de Lyon, France (virtul), **28h**, April 2021.
- *Model-based fault diagnosis - a linear synthesis framework using MatLab*, Teachers: A. Varga, D. Ossmann, International Graduate School of Control EECI, Università degli studi di Padova (Italy), **21h**, March 2019.
- *Model Predictive Control*, **8h**, Teacher: A. Bemporad, IMT Lucca (Italy), May 2018.
- *Hands-On Mini-Course on nonlinear system identification*, **16h**, Teachers: J. Schoukens, M. Schoukens, J. P. Noel, K. Tiels, University of Liege (Belgium), April 2018.
- *Functional data analysis*, **12h**, Teacher: L. Sangalli, Università degli Studi di Bergamo (Italy), November 2017.
- *Robot Control*, **20h**, Teacher: A. Zanchettin, Università degli Studi di Bergamo (Italy), November 2016.
- *Sliding Mode Control*, **16h**, Teacher: E. Usai, Università degli Studi di Bergamo (Italy), September 2016.
- *Big Data*, **20h**, Teacher: A. Cuzzocrea, Università degli Studi di Bergamo (Italy), July 2016.
- *Deep Learning*, **10h**, Teacher: P. Frasconi, Università di Trento (Italy), March 2016.
- *Computer Vision*, **20h**, Teacher: C. Grana, Università degli Studi di Bergamo (Italy), February 2016.
- *Modern bayesian methods and computing for the social sciences*, **30h**, Teacher: J. Gill, Applied Bayesian Statistics School (ABS15), Como (Italy), June 2015.
- *Project Innovation and Management*, **12cfu**, Teacher: M. Kalchschmidt, Università degli Studi di Bergamo (Italy), March-June 2015.
- *Data-driven control system design*, Teacher: S. Formentin, **20h**, Politecnico di Milano (Italy), May 2015.
- *Advanced data driven methods for modeling and control*, **20h**, Teacher: S. Formentin, Università degli Studi di Bergamo (Italy), November 2014.
- *Active vibration control*, **12h**, Teacher: M. G. Tehrani, Università degli Studi di Bergamo (Italy), November 2014.
- *Structural health monitoring and dynamical identification of structures*, **12h**, Teacher: E. Chatzi, Università degli Studi di Bergamo (Italy), September 2014.

PERSONAL SKILLS AND COMPETENCES

Languages

Italian (Mother tongue), English (C1 level).

Computer skills

C, C++, Java, HTML, CSS, Visual Basic, C#, Python, R, MatLab, Simulink, LabView, Eclipse, Visual Studio, Arduino, SVN, Git, CANalyzer, Spotfire, Django, Scikit-learn, Tensorflow, Theano, Keras, Gensim, D3.js, MatLab Image toolbox, Office suite, LaTeX, Cloudera, Hive, Impala.

Sports

Futsal, Tennis.

Artistic skills and competences

Guitar, Trombone, Saxophone, musical composition and arrangement.

Driving licence

Car license.

PUBLICATIONS

International journals

- [J11] M. MAZZOLENI, A. Chiuso, M. Scandella, S. Formentin, F. Previdi
Kernel-based system identification with manifold regularization: a Bayesian perspective.
Automatica, vol. 142, pp. 110419, 2022, ISSN: 0005-1098. DOI: 10.1016/j.automatica.2022.110419.
- [J10] A. Cattaneo, A. Vitali, M. MAZZOLENI, F. Previdi
An agent-based model to assess large-scale COVID-19 vaccination campaigns for the Italian territory: the case study of Lombardy region.
Computer Methods and Programs in Biomedicine, vol. 224, pp. 107029, 2021, ISSN: 0169-2607.
DOI: 10.1016/j.cmpb.2022.107029.

- [J09] A. Luque, M. MAZZOLENI, A. Carrasco, A. Ferramosca
Visualizing Classification Results: Confusion Star and Confusion Gear.
IEEE Access, vol. 10, pp. 1659-1677, 2022. DOI: 10.1109/ACCESS.2021.3137630.
- [J08] M. MAZZOLENI, G. Maroni, S. Formentin, F. Previdi
A kernel-based control approach for multi-period assets allocation based on lower partial moments
Engineering Applications of Artificial Intelligence, vol. 110, 2022, ISSN 0952-1976.
DOI: 10.1016/j.engappai.2021.104659.
- [J07] N. Valceschini, M. MAZZOLENI, F. Previdi
Inertial load classification of low-cost electro-mechanical systems under dataset shift with fast end of line testing.
Engineering Applications of Artificial Intelligence, vol. 105, ISSN 0952-1976, 2021.
DOI: 10.1016/j.engappai.2021.104446.
- [J06] M. Scandella, M. MAZZOLENI, S. Formentin, F. Previdi
Kernel-based identification of asymptotically stable continuous-time linear dynamical systems.
International Journal of Control, 2020. DOI: 10.1080/00207179.2020.1868580.
- [J05] M. Scandella, M. MAZZOLENI, S. Formentin, F. Previdi
A note on the numerical solutions of kernel-based learning problems.
IEEE Transactions on Automatic Control, 2019. DOI: 10.1109/TAC.2020.2989769.
- [J04] M. MAZZOLENI, M. Scandella, F. Previdi, G. Pispola
Data on the first endurance activity of a Brushless DC motor for aerospace applications.
Data in Brief, 2020. DOI: 10.1016/j.dib.2020.105153. ISSN: 2352-3409.
- [J03] M. MAZZOLENI, M. Scandella, F. Previdi, G. Pispola
Experimental development of a Health Monitoring method for Electro-Mechanical Actuators of flight control primary surfaces in More Electric Aircrafts.
IEEE Access, 2019, vol. 7, pp. 153618-153634. DOI: 10.1109/ACCESS.2019.2948781. ISSN: 2169-3536.
- [J02] S. Formentin, M. MAZZOLENI, M. Scandella, F. Previdi
Nonlinear system identification via data augmentation.
Systems & Control Letters, 2019. DOI: 10.1016/j.sysconle.2019.04.004. ISSN: 0167-6911.
- [J01] M. MAZZOLENI, F. Previdi, S. Bonfiglio
Classification algorithms analysis for brain-computer interface in drug craving therapy.
Biomedical Signal Processing and Control, 2019. DOI: 10.1016/j.bspc.2017.01.011. ISSN: 1746-8094.
- [JS01] D. Previtali, M. MAZZOLENI, A. Ferramosca, F. Previdi
GLISp-r: A preference-based optimization algorithm with convergence guarantees.
Submitted to SIAM Journal of optimization, 2022.
- [JS02] M. MAZZOLENI, A. Acernese, K. Sarda, L. Russo., L. Manfredi, L. Glielmo, C. Del Vecchio
A fuzzy logic-based approach for fault diagnosis and condition monitoring of industry 4.0 manufacturing processes.
Submitted to Engineering Applications of Artificial Intelligence, 2022.

Books

- [B02] M. MAZZOLENI, G. Di Rito, F. Previdi
Electro-Mechanical Actuators for the More Electric Aircraft: Condition Monitoring and Fault Diagnosis applications.
In Advances in Industrial Control, Springer International Publishing, 2021, ISBN-13: 978-3-030-61799-8, DOI: 10.1007/978-3-030-61799-8.
- [B01] M. MAZZOLENI
Learning meets control: data analytics for dynamical systems
Bruno Mondadori editor, 2018, ISBN-13: 978-8867741632

International conferences

- [C30] M. MAZZOLENI, M. Scandella, F. Previdi
Evaluation of robust sensors placement schemes for leaks isolation in water distribution networks. Accepted to 1st IFAC Workshop on Control Methods for Water Resource Systems (CMWRS 2022).
- [C29] N. Valceschini, M. MAZZOLENI, L. Pitturelli, S. Salvi, M. Rinaldi, F. Previdi
Experimental fault detection of input gripping pliers in bottling plants. 11th IFAC Symposium on Fault Detection, Supervision and Safety for Technical Processes, Pafos, Cyprus, IFAC-PapersOnline 55 (6), pp. 778-783, 2022. DOI: 10.1016/j.ifacol.2022.07.221.

- [C28] N. Valceschini, M. MAZZOLENI, L. Pitturelli, S. Salvi, M. Rinaldi, F. Previdi
Model-based fault diagnosis of sliding gates electro-mechanical actuators transmission components with motor-side measurements. 11th IFAC Symposium on Fault Detection, Supervision and Safety for Technical Processes, Pafos, Cyprus, IFAC-PapersOnline 55 (6), pp. 784-789, 2022. DOI: 10.1016/j.ifacol.2022.07.222.
- [C27] M. Polver, F. Previdi, M. MAZZOLENI, A. Zucchi
A SIAT3HE Model of the COVID-19 Pandemic in Bergamo, Italy. 11th IFAC S11th IFAC Symposium on Biological and Medical Systems, Ghent, Belgium, IFAC-PapersOnline 54 (15), pp. 263-268, 2022. DOI: 10.1016/j.ifacol.2021.10.266.
- [C26] K. Sarda, A. Acernese, L. Russo, M. MAZZOLENI
A comparison of envelope and statistical analyses for bearing diagnosis in hot steel rolling mill lines. 47th IEEE Annual Conference of the IEEE Industrial Electronics Society (IECON), Toronto (virtual), pp. 1-6, 2021. DOI: 10.1109/IECON48115.2021.9589440.
- [C25] M. MAZZOLENI, M. Scandella, S. Formentin, F. Previdi
Nonparametric continuous-time identification of linear systems: theory, implementation and experimental results. 1st IFAC Modeling, Estimation and Control Conference (MECC), Austin, TX (virtual), IFAC-PapersOnLine 54 (20), pp. 699-704, 2021. DOI: 10.1016/j.ifacol.2021.11.253.
- [C24] M. MAZZOLENI, V. Breschi, S. Formentin
Piecewise nonlinear regression with data augmentation. 19th IFAC Symposium on System Identification (SYSID), Padova (virtual), Italy, July 13-16, IFAC-PapersOnLine 54 (7), pp. 421-426, 2021. DOI: 10.1016/j.ifacol.2021.08.396.
- [C23] L. Maurelli, M. MAZZOLENI, F. Previdi
Modeling and simulation of bimetallic strips in industrial circuit breakers. 19th IFAC Symposium on System Identification (SYSID), Padova (virtual), Italy, July 13-16, IFAC-PapersOnLine 54 (7), pp. 803-808, 2021. DOI: 10.1016/j.ifacol.2021.08.460.
- [C22] M. MAZZOLENI, M. Scandella, S. Formentin, F. Previdi
Black-box continuous-time transfer function estimation with stability guarantees: a kernel-based approach. Proceedings of Machine Learning Research vol 120:1-10, 2nd Learning for dynamics and control conference (L4DC), University of California, Berkeley, CA, June 10-11th, 2020.
- [C21] M. MAZZOLENI, M. Scandella, S. Formentin, F. Previdi
Enhanced kernels for nonparametric identification of a class of nonlinear systems. 18th EUCA European Control Conference (ECC), San Petersburg, Russia, May 12-15, pp. 540-545, 2020. DOI: 10.23919/ECC51009.2020.9143785.
- [C20] D. Previtali, N. Valceschini, M. MAZZOLENI, F. Previdi
Identification of dynamic textures using Dynamic Mode Decomposition. 21st IFAC World Congress, Berlin, Germany, July 12-17, IFAC-PapersOnLine 53 (2), pp. 2423-2428, 2020. DOI: 10.1016/j.ifacol.2020.12.045.
- [C19] M. MAZZOLENI, M. Scandella, F. Previdi
KBERG: A MatLab toolbox for nonlinear kernel-based regularization and system identification. 21st IFAC World Congress, Berlin, Germany, July 12-17, IFAC-PapersOnLine 53 (2), pp. 1231-1236, 2020. DOI: 10.1016/j.ifacol.2020.12.1340.
- [C18] M. MAZZOLENI, M. Scandella, F. Previdi
Mechatronics applications of condition monitoring using a statistical change detection method. 21st IFAC World Congress, Berlin, Germany, July 12-17, IFAC-PapersOnLine 53 (2), pp. 92-97, 2020. DOI: 10.1016/j.ifacol.2020.12.100.
- [C17] M. MAZZOLENI, M. Scandella, S. Formentin, F. Previdi
A comparison of manifold regularization approaches for kernel-based system identification. 13th IFAC Workshop on Adaptive and Learning Control Systems, Winchester, United Kingdom, IFAC-PapersOnLine 52 (29), pp. 180-185, ISSN: 2405-8963, 2019. DOI: 10.1016/j.ifacol.2019.12.641.
- [C16] M. MAZZOLENI, M. Scandella, S. Formentin, F. Previdi
Classification of light charged particles via learning-based system identification. 57th IEEE Conference on Decision and Control, Miami Beach (FL), USA, pp: 6053-6058, ISBN: 978-1-5386-1395-5, 2018. DOI: 10.1109/CDC.2018.8618946.
- [C15] F. Previdi, Y. Maccarana, M. MAZZOLENI, M. Scandella, G. Pispola, N. Porzi
Development and Experimental Testing of a Health Monitoring System of Electro-Mechanical Actuators for Small Airplanes. 26th Mediterranean Conference on Control and Automation (MED), Zadar, Croatia, ISBN: 978-1-5386-7890-9, ISSN: 2473-3504pp: 673-678, 2018. DOI: 10.1109/MED.2018.8442734.

- [C14] M. MAZZOLENI, M. Scandella, Y. Maccarana, F. Previdi, G. Pispola, N. Porzi
Condition monitoring of electro-mechanical actuators for aerospace using batch change detection algorithms.
2nd IEEE Conference on Control Technology and Applications (CCTA), Copenhagen, Denmark,
pp: 1747-1752, ISBN: 978-1-5386-7698-1, 2018. DOI: 10.1109/CCTA.2018.8511334.
- [C13] M. MAZZOLENI, M. Scandella, Y. Maccarana, F. Previdi, G. Pispola, N. Porzi
Condition assessment of electro-mechanical actuators for aerospace using relative density-ratio estimation.
18th IFAC Symposium on System Identification, Stockholm, Sweden, IFAC-PapersOnLine 51 (15), ISSN:
2405-8963, pp: 957 - 962, 2018. DOI: 10.1016/j.ifacol.2018.09.070.
- [C12] M. MAZZOLENI, M. Scandella, S. Formentin, F. Previdi
Identification of nonlinear dynamical system with synthetic data: a preliminary investigation.
18th IFAC Symposium on System Identification, Stockholm, Sweden, IFAC-PapersOnLine 51 (15), ISSN:
2405-8963, pp: 622-627, 2018. DOI: 10.1016/j.ifacol.2018.09.227.
- [C11] M. MAZZOLENI, S. Formentin, M. Scandella, F. Previdi
Semi-supervised learning of dynamical systems: a preliminary study.
16th European Control Conference (ECC), Limassol, Cyprus, ISBN: 978-3-9524-2698-2, 2018.
DOI: 10.23919/ECC.2018.8550550.
- [C10] M. MAZZOLENI, G. Maroni, F. Previdi
Unsupervised learning of fundamental emotional states via word embeddings.
IEEE Symposium Series on Computational Intelligence (SSCI), Hawaii, USA, pp: 31 - 36, ISBN: 978-1-5386-2726-6,
2017. DOI: 10.1109/SSCI.2017.8280819.
- [C09] M. MAZZOLENI, S. Formentin, F. Previdi, S.M. Savaresi
Control-oriented modeling of SKU-level demand in retail food market.
20th IFAC World Congress, Toulouse, France, IFAC-PapersOnLine 50 (1), pp: 13003 - 13008, ISSN: 2405-8963,
2017. DOI: 10.1016/j.ifacol.2017.08.1951.
- [C08] M. MAZZOLENI, Y. Maccarana, F. Previdi
A comparison of data-driven fault detection methods with application to aerospace electro-mechanical actuators.
20th IFAC World Congress, Toulouse, France, IFAC-PapersOnLine 50 (1), ISSN: 2405-8963, pp: 12797 -
12802, 2017. DOI: 10.1016/j.ifacol.2017.08.1837,
- [C07] M. MAZZOLENI, G. Maroni, Y. Maccarana, S. Formentin and F. Previdi
Fault detection in airliner electro-mechanical actuators via hybrid particle filtering.
20th IFAC World Congress, Toulouse, France, IFAC-PapersOnLine 50 (1), ISSN: 2405-8963, pp: 2860 - 2865,
2017. DOI: 10.1016/j.ifacol.2017.08.640.
- [C06] M. MAZZOLENI, Y. Maccarana, F. Previdi, G. Pispola, M. Nardi, F. Perni, S. Toro
Development of a reliable electro-mechanical actuator for primary control surfaces in small aircrafts.
IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM), Munich, Germany,
ISBN: 978-1-5090-6000-9, ISSN: 2159-6255, pp: 1142 - 1147, 2017. DOI: 10.1109/AIM.2017.8014172.
- [C05] A. Cologni, M. MAZZOLENI, F. Previdi
Low computational complexity control of a three-phases open-windings AC brushless motor.
42nd IEEE Industrial Electronics society annual CONFERENCE (IECON), Florence, Italy, ISBN: 978-1-5090-3474-1,
pp: 577 - 582, 2016. DOI: 10.1109/IECON.2016.7793011,
- [C04] A. Cologni, M. MAZZOLENI, F. Previdi
Modeling and identification of an Electro-Hydraulic Actuator.
12th IEEE International Conference on Control and Automation (ICCA), Kathmandu, Nepal,
ISBN: 978-1-5090-1738-6, pp: 335 - 340, 2016. DOI: 10.1109/ICCA.2016.7505299.
- [C03] F. Previdi, M. MAZZOLENI, A. Cologni, M. Ermidoro
An application of the remote maintenance paradigm to semi-automated machines.
14th IMEKO TC10 Workshop on Technical Diagnostics, Milan, Italy, 2016, pp: 285 - 289.
- [C02] M. MAZZOLENI, F. Previdi
A Comparison of Classification Algorithms for Brain Computer Interface in Drug Craving Treatment.
9th IFAC Symposium on Biological and Medical Systems (BMS), Berlin, Germany, ISSN: 2405-8963,
pp: 487 - 492, 2015. DOI: 10.1016/j.ifacol.2015.10.188.
- [C01] M. MAZZOLENI, S. Formentin, F. Previdi and S. M. Savaresi
Fault Detection via modified Principal Direction Divisive Partitioning and application to aerospace electro-mechanical actuators. 53th IEEE Conference on Decision and Control (CDC), Los Angeles, USA,
ISBN: 978-1-4673-6090-6, ISSN: 0191-2216, pp: 5770 - 5775, 2014. DOI: 10.1109/CDC.2014.7040292.

Toolboxes

- [T01] M. MAZZOLENI, M. Scandella, F. Previdi
KBERG: A MatLab toolbox for nonlinear kernel-based regularization and system identification.
<https://cal.unibg.it/wp-content/uploads/papers/20210701-KBERG.7z>

WAIVER

I authorize the treatment of my personal data in compliance with the Italian Legislative Decree 196/2003 and the article GDPR 679/16 - "European regulation on the protection of personal data".