CURRICULUM VITÆ

GUILHERME MAZANTI

Personal information

Full name: Guilherme Afonso Mazanti
Birth: 26 February 1988, at Assis – SP, Brazil
Nationalities: Brazilian and French
Languages: Portuguese (mother tongue), French (proficient), English (proficient), Italian (intermediate)
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Professional experience

2020– Inria Starting Faculty Position
Inria Saclay–Île-de-France
Laboratory of signals and systems (L2S) UMR 8506
CentraleSupélec, Paris-Saclay University, Gif-sur-Yvette, France

2019–2020 Postdoctoral researcher
Inria Saclay–Île-de-France
Polytechnic institute of advanced sciences (IPSA)
Laboratory of signals and systems (L2S) UMR 8506
CentraleSupélec, Paris-Saclay University, Gif-sur-Yvette, France

2016–2019 Postdoctoral researcher "Hadamard Lecturer"
Laboratory of Mathematics of Orsay (LMO) UMR 8628
Paris-Sud University, Paris-Saclay University, Orsay, France

2013–2016 Ph.D. in Applied Mathematics
Centre of Applied Mathematics (CMAP) UMR 7641
École Polytechnique, Paris-Saclay University, Palaiseau, France

2013 Research internship
6 months
GECO Team, Inria Saclay–Île-de-France, Palaiseau, France

2012 Research internship
4 months
GECO Team, Inria Saclay–Île-de-France, Palaiseau, France

2011 Research internship
3 months
Centre of Applied Mathematics (CMAP)
École Polytechnique, Palaiseau, France

Education

2013–2016 Ph.D. in Applied Mathematics
Centre of Applied Mathematics (CMAP) UMR 7641

École Polytechnique, Paris-Saclay University, Palaiseau, France
Thesis: *Stability and stabilization of linear switched systems in finite and infinite dimensions*
Advisers: Yacine Chitour and Mario Sigalotti
Jury: *President*: Fatiha Alabau-Boussouira
Referees: Jean-Michel Coron and Enrique Zuazua
Examiners: Michel Benaïm, Yacine Chitour, Antoine Girard, Christophe Prieur, and Mario Sigalotti

2012–2013 Master's degree M2 in Applied Mathematics
Mathematics of modeling — Numerical analysis and PDEs
École Polytechnique, Palaiseau, France
Thesis: *Persistence of excitation on delayed systems and on a damped transport equation*
Advisers: Yacine Chitour and Mario Sigalotti

2009–2012 École Polytechnique Engineering degree
Class X2008
École Polytechnique, Palaiseau, France
Thesis: *Stabilization of persistently excited linear systems*
Advisers: Yacine Chitour and Mario Sigalotti

2006–2011 Electrical / Electronic Engineering
São Carlos School of Engineering (EESC)
University of São Paulo, São Carlos – SP, Brazil
Thesis: *Switched systems: an overview*
Advisers: Yacine Chitour and Mario Sigalotti

Research activities

Research funding

2023–2024 *Mean-field optimal control with piecewise deterministic Markov processes*
Funding: Gaspard Monge Program for Optimisation and operational research (PGMO)
Coordinator: Laurent Pfeiffer
5 participants

2023–2024 *Séminaire d'automatique du plateau de Saclay*
Funding: Human in the loop for control and decision (H-CODE), University Paris-Saclay
Coordinator: Riccardo Bonalli
3 participants
Project funding the organization of the Control Seminairs at Saclay Plateau

2023–2024 *Control of propagation phenomena: from hyperbolic partial differential equations to time-delay systems*
Funding: Human in the loop for control and decision (H-CODE), University Paris-Saclay
Coordinator: Guilherme Mazanti
4 participants

2022–2023 *Séminaire d'automatique du plateau de Saclay*
Funding: Human in the loop for control and decision (H-CODE), University Paris-Saclay
Coordinator: Guilherme Mazanti
3 participants
Project funding the organization of the Control Seminairs at Saclay Plateau

2022–2023 *New trends in the control of partial differential equations and its applications*
Funding: Human in the loop for control and decision (H-CODE), University Paris-Saclay

Coordinator: Guilherme Mazanti
2 participants

2017–2019 *Variational and PDE methods in Mean Field Games* (VarPDEMFG)
Funding: Gaspard Monge Program for Optimisation and operational research (PGMO)
Coordinator: Daniela Tonon
15 participants
Local coordinator at the Laboratory of Mathematics of Orsay (LMO) from September 2018 until August 2019

2016–2019 *Mean field games*
Funding: Jacques Hadamard Mathematics Foundation (FMJH)
Coordinator: Guilherme Mazanti
1 participant
Complementary research funding in the framework of the post-doctoral contract "Lecteur Hadamard"

2015–2016 *Averaged Control of Networks*
Funding: Institute for Control and Decision (iCODE), IDEX Paris-Saclay
Coordinator: Mario Sigalotti
4 participants

2013–2016 *Stability of persistently excited systems*
Funding: Hadamard Mathematics LabEx (LMH) program MathIng
Coordinator: Mario Sigalotti
3 participants

2011 *Measure theory and integration*
Funding: National council for scientific and technological development (CNPq)
Coordinator: Hildebrando Munhoz Rodrigues
2 participants
6-month scientific training project

2008 *Linear algebra and functional analysis*
Funding: São Paulo foundation for the support of research (FAPESP)
Coordinator: Hildebrando Munhoz Rodrigues
2 participants
12-month scientific training project

2007 *Analysis and Lebesgue integral*
Funding: São Paulo foundation for the support of research (FAPESP)
Coordinator: Hildebrando Munhoz Rodrigues
2 participants
12-month scientific training project

Organization of conferences and scientific events

Organization of seminars.

- *Control Seminars at Saclay Plateau*
  Gif-sur-Yvette, France
  Organizer since March 2022
  Co-organized with Nina Amini, Riccardo Bonalli, Anas Makdesi
- *Seminar on nonlocal systems*
  Online seminars
  Organizer from July 2021 until May 2022
  Co-organized with Jaqueline Godoy Mesquita, Humberto Prado

Organization of conferences.

2023 *EDP, commande et observation des systèmes (EDP-COSy)*
Toulouse, France, 17–20 October 2023
Co-organized with Vincent Andrieu, Lucie Baudouin, Lucas Brivadis, Swann Marx, Philippe Moireau, Karim Ramdani

2022 *Contrôle d'EDPs : approches en mathématiques et en automatique*
Paris, France, 2–3 November 2022
Co-organized with Swann Marx

2022 *27th International Conference on Difference Equations and Applications (ICDEA 2022)*
Gif-sur-Yvette, France, 18–22 July 2022
Co-organized with Sorin Olaru, Alessio Iovine, Carlos Eduardo Trabuco Dórea, Florentina Nicolau, Laurent Pfeiffer, Serban Sabau, Florin Stoican

2021 *3rd DECOD — Delays and constraints in distributed parameter systems*
Gif-sur-Yvette, France, 23–26 November 2021
Co-organized with Jean Auriol, Islam Boussaada, Silviu-Iulian Niculescu, Giorgio Valmorbida

2017 *2017 Welcome days for master's students of the Jacques Hadamard Mathematics Foundation (FMJH)*
Bures-sur-Yvette, France, 6–8 September 2017
Co-organized with Maxime Fevrier, Anne Vaugon

2014 *CIMPA Research School — Geometric, stochastic and PDE control*
Tlemcen, Algeria, 12–23 April 2014
Co-organized with Mohammed Benalili, Sidi Mohammed Bouguima, Yacine Chitour, Djamila Hadj Slimane, Salah Laghrouche, Benmiloud Mebkhout

Organization of sessions on conferences.

2022 *Hybrid phenomena in systems and control*
8th IFAC Symposium on Systems Structure and Control (SSSC 2022)
Montreal, Canada, 27 – 30 September 2022
Co-organized with Jaqueline Godoy Mesquita

2021 *Mean Field Games and Applications*
PGMO Days 2021
Palaiseau, France, 30 November – 1 December 2021
Co-organized with Laurent Pfeiffer

2021 *Recent Trends in Time-delay Systems analysis and design with applications*
24th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2020)
Cambridge, United Kingdom, 23–27 August 2021
Co-organized with Islam Boussaada, Jie Chen, Silviu-Iulian Niculescu

2021 *Delay and functional differential equations and applications*
Mathematical Congress of the Americas (MCA) 2021
Buenos Aires, Argentina, 19–24 July 2021
Co-organized with Pablo Amster, Jaqueline Godoy Mesquita, Arkadi Ponossov

2019 *Delay and functional differential equations and applications*
1st Joint Meeting Brazil-France in Mathematics
Rio de Janeiro, Brazil, 15–19 July 2019
Co-organized with Jaqueline Godoy Mesquita

2015 *Switched Systems and Applications*
SIAM Conference on Control and Its Applications
Paris, France, 8–10 July 2015
Co-organized with Yacine Chitour

Scientific evaluation

Editorial activities.

2021– Matemática Contemporânea — Associate editor

2022 17th IFAC Workshop on Time Delay Systems (TDS 2022) — Member of the International Program Committee (IPC)

Referee activities.

- Acta Applicandae Mathematicae
- American Control Conference
- Applied Mathematics and Optimization
- Automatica
- Communications in Contemporary Mathematics
- Computational and Applied Mathematics
- Congresso Brasileiro de Automática
- ESAIM. Control, Optimisation and Calculus of Variations
- European Control Conference
- Facta Universitatis Series Mathematics and Informatics
- IEEE Conference on Decision and Control
- IEEE Control Systems Letters
- IEEE Transactions on Automatic Control
- IEEE Transactions on Control of Network Systems
- IEEE Transactions on Fuzzy Systems
- IFAC Workshop on Control Applications of Optimization
- IFAC Workshop on Time Delay Systems (TDS)
- IFAC World Congress
- IMA Journal of Mathematical Control and Information
- Indian Journal of Pure and Applied Mathematics
- International Journal of Game Theory
- International Journal of Robust and Nonlinear Control
- International Symposium on Mathematical Theory of Networks and Systems (MTNS)
- Journal de Mathématiques Pures et Appliquées
- Journal of Dynamical and Control Systems
- Journal of Dynamics and Games
- Journal of Optimization Theory and Applications
- Mathematical Control and Related Fields
- Networks and Spatial Economics
- Numerische Mathematik
- SIAM Journal on Control and Optimization
- SIAM Journal on Matrix Analysis and Applications
- Systems & Control Letters

Teaching activities

2022–2023

- CentraleSupélec
  - *Optimization (apprenticeship program)* (45.4h)
    Second year of the apprenticeship program
  - *Partial differential equations* (15h)
    First year of the engineering program

2021–2022

- CentraleSupélec
  - *Optimization (apprenticeship program)* (45.4h)
    Second year of the apprenticeship program
  - *Partial differential equations* (16.5h)
    First year of the engineering program

2020–2021

- CentraleSupélec
  - *Optimization (apprenticeship program)* (24.8h)
    Second year of the apprenticeship program
  - *Optimization* (10.5h)
    Second year of the engineering program
  - *Optimization (dual diploma with ESSEC and ESCP)* (10.5h)
    First year of the dual diploma program between CentraleSupélec and ESSEC / ESCP Europe
  - *Model representation and analysis* (15h)
    First year of the engineering program

2019–2020

- CentraleSupélec

- *Optimization (dual diploma with ESSEC and ESCP)* (10.5h)
  First year of the dual diploma program between CentraleSupélec and ESSEC / ESCP Europe
- *Optimization* (10.5h)
  Second year of the engineering program

- Polytechnic institute of advanced sciences (IPSA)
  - *Ci 422i — MID: a novel approach in control design* (15h)
    Introductory course on research and innovation, part of the fourth year of the engineering program

2018–2019

- Lebanese University
  - *Control theory: controllability and optimal control* (27h)
    Master's M2 Differential geometry and geometric control
- Polytech Paris-Sud
  - *Math398 — Introduction to scientific calculus and differential equations* (27.5h)
    First year (L3) of the engineering program
- Paris-Sud University
  - *Math208 — Python for scientific calculus* (42h)
    Second year (L2) of the Mathematics program

2017–2018

- Polytech Paris-Sud
  - *Math398 — Introduction to scientific calculus and differential equations* (18.5h)
    First year (L3) of the engineering program
- Paris-Sud University
  - *Math208 — Python for scientific calculus* (42h)
    Second year (L2) of the program "Mathematics and computer science"

2016–2017

- Polytech Paris-Sud
  - *Math398 — Introduction to scientific calculus and differential equations* (27.5h)
    First year (L3) of the engineering program
- Paris-Sud University
  - *Math151 — Calculus* (36h)
    First year (L1) of the program "Physics, chemistry, and geosciences"

2015–2016

- École Polytechnique
  - *MAP581 — Project on Applied Mathematics* (20h)
    Third year (M1) of the engineering program
  - *MAP572 — Implementation of numerical methods* (15h)
    Third year (M1) of the engineering program
  - *MAP411 — Numerical approximation and optimization* (25h)
    Second year (L3) of the engineering program
  - *Preparatory classes on applied mathematics for foreign students* (3h)
    First year of the engineering program

2014–2015

- École Polytechnique
  - *MAP434 — Control of dynamical models* (6h)
    Second year (L3) of the engineering program
  - *MAP411 — Numerical approximation and optimization* (58h)
    Second year (L3) of the engineering program

2013–2014

- École Polytechnique
  - *MAP431 — Numerical analysis and optimization* (64h)
    Second year (L3) of the engineering program

2012–2013

- École Polytechnique
  - *MAP431 — Numerical analysis and optimization* (34h)
    Second year (M1) of the engineering program

2011

- University of São Paulo
  - *SME0345 — Functions of a complex variable* (30h)
    Second year course (L2) for Electrical / Automation Engineering students

Students advised

PhD students

Ongoing.

2022– Thibault Moquet
CentraleSupélec Mathematics Federation
Laboratory of signals and systems (L2S)
CentraleSupélec, Paris-Saclay University, Gif-sur-Yvette, France
Inria Saclay–Île-de-France
Doctoral School of Mathematics Hadamard (EDMH)
Thesis: *Mean field games: Potential games and duality methods*
Co-supervised with Laurent Pfeiffer

Previous students.

2020–2022 Saeed Sadeghi Arjmand
Centre of Mathematics Laurent Schwartz (CMLS)
École Polytechnique, Paris Polytechnic Institute, Palaiseau, France
Laboratory of signals and systems (L2S)
CentraleSupélec, Paris-Saclay University, Gif-sur-Yvette, France
Inria Saclay–Île-de-France
Doctoral School of Mathematics Hadamard (EDMH)
Thesis: *Mean field games with free final time*
Co-supervised with Anne-Sophie de Suzzoni
Defense date: 9 December 2022
Jury:
President: Nizar Touzi
Referees: Pierre Cardaliaguet, Daniela Tonon
Examiners: Bertrand Maury, Filippo Santambrogio
Advisors: Guilherme Mazanti, Anne-Sophie de Suzzoni

Research internships

Previous students.

2019 Josline Yassine
Faculty of Science, Lebanese University, Hadath, Lebanon
Level: Master's M2
Subject: *Controllability of linear difference equations*
Duration: 4 months
Co-supervised with Amina Mortada

2015–2016 Dexiong Chen, Joseph-André Turk
École Polytechnique, Paris-Saclay University, Palaiseau, France
Level: Master's M1
Subject: *Stability of systems of partial differential equations with boundary coupling*
Duration: 2 months
Co-supervised with Yacine Chitour

Prizes and awards

2016 *Excellence post-doctoral funding from the Jacques Hadamard Mathematics Foundation (FMJH) "Lecteur Hadamard" program*

2013 *Excellence PhD Funding from École Polytechnique program "Gaspard Monge"*
Excellence PhD Funding for PhD candidates with international research activities

2011 *CREA–SP Prize of Professional Education*
Ranked 1st among the 41 students graduating in Electrical / Electronic Engineering at São Carlos School of Engineering (EESC) in 2011
Awarded by: São Paulo Regional Council for Engineering and Agronomy (CREA-SP)

2011 *Engineering Institute Prize*
Ranked 1st among the 402 students graduating in Engineering at São Carlos School of Engineering (EESC) in 2011 (average of 9.80 over 10)
Awarded by: Engineering Institute, São Paulo – SP, Brazil

2011 *Research Internship Grand Prix X2008*
Awarded to the best research internships among the 619 first-year Master's students (M1) at École Polytechnique. First place in the category "Applied mathematics"
Awarded by: École Polytechnique, Palaiseau, France

2011 *Ranked 56^{th} among 410 students at the end of the 2^{nd} year at École Polytechnique*
GPA: 4.22

2008 *Ranked 3^{rd} in the entrance examination of École Polytechnique*
International admission examination for University students (EV2), total of 75 admitted candidates in the same track

2006 *Ranked 1^{st} in the Electrical Engineering entrance exam at São Paulo State University*
100/100 in Mathematics, 100/100 in Physics, 87.586/100 final average. Entrance exam for Electrical Engineering at the Ilha Solteira campus

2006 *Ranked 1^{st} in the Electrical Engineering entrance exam at University of Campinas*
58/60 in Mathematics, 58/60 in Physics, 715.26/900 final average

2006 *Ranked 1^{st} in the Engineering entrance exam at the São Carlos School of Engineering (EESC), University of São Paulo*
39/40 in Mathematics, 40/40 in Physics, 861.1/1000 final average

2005 *Ranked 1^{st} in the mid-year Electrical Engineering entrance exam at São Paulo State University*
100/100 in Mathematics, 100/100 in Physics, 91.595/100 final average. Entrance exam for Electrical Engineering at the Ilha Solteira campus

2005 *Ranked 6^{th} in the Electrical Engineering entrance exam at São Paulo State University*
87.6/100 in Mathematics, 86.0/100 in Physics, 81.519/100 final average. Entrance exam for Electrical Engineering at the Bauru campus

2004 *Brazilian Physics Olympiad (OBF) — Gold medal*
Awarded by: Brazilian Physics Society (SBF)

2004 *São Paulo Physics Olympiad (OPF) — Silver medal*
Awarded by: São Paulo Association of Physics Teachers (APROFI)

2003 *Brazilian Physics Olympiad (OBF) — Gold medal*
Awarded by: Brazilian Physics Society (SBF)

Softwares

- *P3δ*
  P3δ stands for *Partial pole placement via delay action* and is a software implementing recent methods for the stability analysis and the stabilization of linear time-delay systems exploiting the delay action. The software is written in *Python* and its development started in 2020 by a group of three researchers from the Laboratory of signals and systems (L2S) and several students from Polytechnic institute of advanced sciences (IPSA).
  Authors: I. Boussaada, G. Mazanti, S.-I. Niculescu, Y. Audet, A. Leclerc, A. Said Mohamed, F. Sim, H. Curlier, J. Huynh, M. Perraudin, M. Thomas, T. Charbonnet, P.-H. Poret.
  Website: `https://cutt.ly/p3delta`

Publications

Articles in peer-reviewed journals

Preprints.

[1] I. Boussaada, G. Mazanti, S.-I. Niculescu, W. Michiels.
Decay Rate Assignment through Multiple Spectral Values in Delay Systems.

Published articles.

[2] Y. Chitour, S. Fueyo, G. Mazanti, M. Sigalotti.
Hautus–Yamamoto criteria for approximate and exact controllability of linear difference delay equations.
Discrete Contin. Dyn. Syst, 43(9):3306–3337, 2023.

[3] S. Fueyo, G. Mazanti, I. Boussaada, Y. Chitour, S.-I. Niculescu.
On the pole placement of scalar linear delay systems with two delays.
IMA J. Math. Control Inform, 40(1):81–105, 2023.

[4] Y. Chitour, G. Mazanti, P. Monmarché, M. Sigalotti.
On the gap between deterministic and probabilistic Lyapunov exponents for continuous-time linear systems.
Electron. J. Probab., 28:Paper No. 43, 39 pp., 2023.

[5] S. Sadeghi Arjmand, G. Mazanti.
Nonsmooth mean field games with state constraints.
ESAIM Control Optim. Calc. Var, 28:Paper No. 74, 42 pp., 2022.

[6] S. Sadeghi Arjmand, G. Mazanti.
Multipopulation minimal-time mean field games.
SIAM J. Control Optim., 60(4):1942–1969, 2022.

[7] I. Boussaada, G. Mazanti, S.-I. Niculescu.
The generic multiplicity-induced-dominancy property from retarded to neutral delay-differential equations: When delay-systems characteristics meet the zeros of Kummer functions.
C. R. Math. Acad. Sci. Paris, 360:349–369, 2022.

[8] I. Boussaada, G. Mazanti, S.-I. Niculescu.
Some remarks on the location of non-asymptotic zeros of Whittaker and Kummer hypergeometric functions.
Bull. Sci. Math, 174:Paper No. 103093, 12 pp., 2022.

[9] R. Ducasse, G. Mazanti, F. Santambrogio.
Second order local minimal-time mean field games.
NoDEA Nonlinear Differential Equations Appl., 29:Paper No. 37, 32 pp., 2022.

[10] G. Mazanti, I. Boussaada, S.-I. Niculescu.
Multiplicity-induced-dominancy for delay-differential equations of retarded type.
J. Differential Equations, 286:84–118, 2021.

[11] Y. Chitour, S. Marx, G. Mazanti.
One-dimensional wave equation with set-valued boundary damping: well-posedness, asymptotic stability, and decay rates.
ESAIM Control Optim. Calc. Var, 27:Paper No. 84, 62 pp., 2021.

[12] Y. Chitour, G. Mazanti, M. Sigalotti.
On the gap between deterministic and probabilistic joint spectral radii for discrete-time linear systems.
Linear Algebra Appl., 613:24–45, 2021.

[13] S. Dweik, G. Mazanti.
Sharp semi-concavity in a non-autonomous control problem and L^p estimates in an optimal-exit MFG.
NoDEA Nonlinear Differential Equations Appl., 27(2):Paper No. 11, 59 pp., 2020.

[14] Y. Chitour, G. Mazanti, M. Sigalotti.
Approximate and exact controllability of linear difference equations.
J. Éc. polytech. Math., 7:93–142, 2020.

[15] G. Mazanti, F. Santambrogio.
Minimal-time mean field games.
Math. Models Methods Appl. Sci., 29(8):1413–1464, 2019.

[16] F. Colonius, G. Mazanti.
Decay rates for stabilization of linear continuous-time systems with random switching.
Math. Control Relat. Fields, 9(1):39–58, 2019.

[17] G. Mazanti.
Relative controllability of linear difference equations.
SIAM J. Control Optim., 55(5):3132–3153, 2017.

[18] Y. Tang, G. Mazanti.
Stability analysis of coupled linear ODE-hyperbolic PDE systems with two time scales.
Automatica J. IFAC, 85:386–396, 2017.

[19] Y. Chitour, G. Mazanti, M. Sigalotti.
Persistently damped transport on a network of circles.
Trans. Amer. Math. Soc., 369(6):3841–3881, 2017.

[20] Y. Chitour, G. Mazanti, M. Sigalotti.
Stability of non-autonomous difference equations with applications to transport and wave propagation on networks.
Netw. Heterog. Media, 11(4):563–601, 2016.

[21] G. Mazanti.
Stabilization of persistently excited linear systems by delayed feedback laws.
Systems Control Lett., 68:57–67, 2014.

[22] G. Mazanti, Y. Chitour, M. Sigalotti.
Stabilization of two-dimensional persistently excited linear control systems with arbitrary rate of convergence.
SIAM J. Control Optim., 51(2):801–823, 2013.

Articles in conference proceedings

Accepted articles.

[23] G. Arias, S. Marx, G. Mazanti.
Frequency domain approach for the stability analysis of a fast hyperbolic PDE coupled with a slow ODE.
62nd IEEE Conference on Decision and Control (CDC 2023), 2023.

Published articles.

[24] I. Boussaada, G. Mazanti, S.-I. Niculescu, A. Benarab.
MID Property for Delay Systems: Insights on Spectral Values with Intermediate Multiplicity.
61st IEEE Conference on Decision and Control (CDC 2022), 6881–6888, 2022.

[25] H. Cavalera, J. Raj, G. Mazanti, C. Bonnet.
YALTAPy and YALTAPy_Online: Python toolboxes for the H_∞-stability analysis of classical and fractional systems with commensurate delays.
17th IFAC Workshop on Time Delay Systems (TDS 2022). *IFAC-PapersOnLine*, 55(36):192–197, 2022.

[26] I. Boussaada, G. Mazanti, S.-I. Niculescu, A. Hammoumou, T. Millet, J. Raj, J. Huynh.
New Features of P3δ Software. Insights and Demos.
17th IFAC Workshop on Time Delay Systems (TDS 2022). *IFAC-PapersOnLine*, 55(36):246–251, 2022.

[27] I. Boussaada, G. Mazanti, S.-I. Niculescu.
Padé approximation and hypergeometric functions: A missing link with the spectrum of delay-differential equations.
25th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2022). *IFAC-PapersOnLine*, 55(30):206–211, 2022.

[28] S. Sadeghi Arjmand, G. Mazanti.
On the characterization of equilibria of nonsmooth minimal-time mean field games with state constraints.
2021 60th IEEE Conference on Decision and Control (CDC), 5300–5305, 2021.

[29] I. Boussaada, G. Mazanti, S.-I. Niculescu, A. Leclerc, J. Raj, M. Perraudin.
New Features of P3δ software: Partial Pole Placement via Delay Action.
16th IFAC Workshop on Time Delay Systems (IFAC TDS 2021). *IFAC-PapersOnLine*, 54(18):215–221, 2021.

[30] S. Fueyo, G. Mazanti, I. Boussaada, Y. Chitour, S.-I. Niculescu.
Insights into the multiplicity-induced-dominancy for scalar delay-differential equations with two delays.
16th IFAC Workshop on Time Delay Systems (IFAC TDS 2021). *IFAC-PapersOnLine*, 54(18):108–114, 2021.

[31] S.-I. Niculescu, I. Boussaada, X.-G. Li, G. Mazanti, C.-F. Méndez-Barrios.
Stability, delays and multiple characteristic roots in dynamical systems: A guided tour.
16th IFAC Workshop on Time Delay Systems (IFAC TDS 2021). *IFAC-PapersOnLine*, 54(18):222–239, 2021.

[32] G. Mazanti, I. Boussaada, S.-I. Niculescu, Y. Chitour.
Effects of roots of maximal multiplicity on the stability of some classes of delay differential-algebraic systems: the lossless propagation case.
24th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2020). *IFAC-PapersOnLine*, 54(9):764–769, 2021.

[33] A. Benarab, I. Boussaada, K. Trabelsi, G. Mazanti, C. Bonnet.
The MID property for a second-order neutral time-delay differential equation.
2020 24th International Conference on System Theory, Control and Computing (ICSTCC), 202–207, 2020.

[34] I. Boussaada, G. Mazanti, S.-I. Niculescu, J. Huynh, F. Sim, M. Thomas.
Partial pole placement via delay action: A Python software for delayed feedback stabilizing design.
2020 24th International Conference on System Theory, Control and Computing (ICSTCC), 196–201, 2020.

[35] G. Mazanti, I. Boussaada, S.-I. Niculescu, T. Vyhlídal.
Spectral dominance of complex roots for single-delay linear equations.
21st IFAC World Congress. *IFAC-PapersOnLine*, 53(2):4357–4362, 2020.

[36] G. Mazanti, I. Boussaada, S.-I. Niculescu.
On qualitative properties of single-delay linear retarded differential equations: Characteristic roots of maximal multiplicity are necessarily dominant.
21st IFAC World Congress. *IFAC-PapersOnLine*, 53(2):4345–4350, 2020.

Book chapters

[37] Y. Chitour, G. Mazanti, M. Sigalotti.
Stabilization of persistently excited linear systems.
In J. Daafouz, S. Tarbouriech, M. Sigalotti, editors, *Hybrid Systems with Constraints*, chapter 4, 85–120. Automation — Control and Industrial Engineering Series, Wiley-ISTE, London, UK, 2013.

Edited books

[38] J. Auriol, J. Deutscher, G. Mazanti, G. Valmorbida.
Advances in Distributed Parameter Systems.
Advances in Delays and Dynamics, volume 14.
Springer, Cham, Switzerland, 2022.