

CURRICULUM VITAE: GIANLUCA BIANCHIN



Email: gianluca.bianchin@uclouvain.be

Address: Ave. G. Lemaitre 4, L4.05.01, 1348, Louvain-la-Neuve, Belgium

Webpage: <https://gianlucabi.github.io>

Google Scholar: <https://gianlucabi.github.io/GoogleScholar>

ORCID: [0000-0002-3234-5535](https://orcid.org/0000-0002-3234-5535)

ResearcherID: [S-4861-2018](https://orcid.org/S-4861-2018)

CURRENT POSITIONS

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|----------------|---|
| 2022 – Present | Assistant Professor
Department of Mathematical Engineering
Institute for Information and Communication Technologies, Electronics, and Applied Mathematics (ICTEAM)
University of Louvain (UCLouvain), Belgium |
| 2025 – Present | Research Principal Investigator
WEL Research Institute, Belgium
Lead of research activities on real-time optimization and sustainable mobility systems |

EDUCATION

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|-------------|--|
| 2015 – 2020 | Ph.D. in Mechanical Engineering
University of California, Riverside, California, USA
Advisor: Prof. Fabio Pasqualetti |
| 2012 – 2014 | M.Sc. in Controls Engineering
University of Padua, Italy
Degree awarded “ <i>Summa cum Laude</i> ” (top 1%)
Advisor: Prof. Angelo Cenedese |
| 2009 – 2012 | B.Sc. in Electrical Engineering (local program name: Information Engineering)
University of Padua, Italy
Advisor: Prof. Luca Schenato |

PREVIOUS POSITIONS AND RESEARCH APPOINTMENTS

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| 2025 | Visiting Professor , KTH Royal Institute of Technology, Stockholm, Sweden
Division of Control Systems and Digital Futures Institute |
| 2020 – 2022 | Postdoctoral Researcher
Department of Electrical, Computer & Energy Engineering
University of Colorado, Boulder, Colorado, USA
Advisors: Prof. Emiliano Dall’Anese and Prof. Jorge Cortés |
| 2019 | Research Intern
Robert Bosch LLC, Sunnyvale, California, USA
Topic: Dynamic modeling of Proton-Exchange Membrane (PEM) fuel cells |
| 2018 | Research Intern
Pacific Northwest National Laboratory, Richland, Washington, USA
Topic: Resilience analysis of roadway traffic networks |
| 2015 | Visiting Scholar
University of California, Riverside, California, USA
Group: Cyber-Physical Systems and Distributed Computing Laboratory |

AWARDS AND PEER RECOGNITION

The second award is particularly prestigious, as it represents **one of the highest recognitions from the control systems community**, granted to the best paper published in a leading journal of the field.

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| 2025 | Best Master's Thesis in Critical Embedded Systems Award
Award received in the role of advisor; awarded annually to the best Master's thesis on the topic, selected from approximately 200 graduates. |
| 2023 | IEEE Transactions on Control of Network Systems – Best Paper Award
Conferred annually to the best paper published in the IEEE Transactions; selected from approximately 200 accepted contributions. I developed the awarded work as the main (first) author. The awarded paper is [J13] . |
| 2019 | Elsevier Automatica Editor's Choice of the Month
Conferred by the Elsevier journal <i>Automatica</i> to a single, promising paper chosen monthly from roughly 40 submissions. The awarded paper is [J16] . |
| 2019 | Best PhD Dissertation Award , Department of Mechanical Engineering, UC Riverside
Conferred to one outstanding doctoral dissertation selected annually. |
| 2017 | University of California Green Grant Award , UC Riverside
Conferred for a promising research proposal on energy sustainability; one of three awards granted campus-wide. |
| 2015 | Dean's Distinguished Fellowship Award , UC Riverside
Conferred to top incoming Ph.D. applicants; one of five fellowships awarded among approximately 100 applicants. |
| 2014 | M.Sc. Degree awarded with highest honors (<i>"Summa cum Laude"</i>), University of Padua |

FUNDING

I have received **more than €1,500,000** in competitive research funding since 2022:

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| 2025 | Green Shared Multi-Modal Transportation: A Real-Time Optimization Approach
Funding Instrument: Walloon Region WEL-T Investigator Program (Starting Grant)
Amount: €600K (sole Principal Investigator) |
| 2024 | Data-Driven Control of Complex Network Systems in Data-Limited Environments
Funding Instrument: FRS–FNRS Aspirant (ASP), awarded under my supervision
Amount: €200K (sole Principal Investigator) |
| 2024 | Sustainability in Data-Driven Control: A Resource-Centric Approach
Funding Agency: UCLouvain Special Research Funds (FSR)
Amount: €800K (collaborative project, with 4 other co-Principal Investigators)
Collaborators: R. Jungers, J. Hendrickx, J.-C. Delvenne. |
| 2022 | Control-Informed Learning of Physical Systems with Humans in the Loop
Funding Agency: UCLouvain Special Research Funds (FSR)
Amount: €80K (sole Principal Investigator) |

As a postdoctoral researcher, I contributed to the development and writing of the following proposals, all of which were successfully funded:

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| 2020 | Closed-Loop Optimization and Control of Physical Networks Subject to Dynamic Costs, Constraints, and Disturbances
Funding Agency: US National Science Foundation (NSF), Division of Civil, Mechanical and Manufacturing Innovation (CMMI)
Amount: \$300K (Principal Investigators: Emiliano Dall'Anese, Jorge Cortés) |
| 2020 | Control-Theoretic Design of Data-Driven Policies for Containing Transmission of Infectious Diseases
Funding Agency: University of Colorado, AB Nexus Program
Amount: \$50K (Principal Investigators: E. Dall'Anese, A. G. Buchwald, J. I. Poveda) |

TEACHING ACTIVITIES

I currently teach approximately 95 hours of coursework per year across 6 courses. I teach at multiple levels, from second-year Bachelor's courses to advanced Master's courses, and across a wide range of class sizes, from approximately 10 to 200 students. Below is a list of the courses I currently teach:

- 2022–Present **Linear Control** (UCLouvain LINMA1510)
Bachelor's course with approx. 200 students
- 2024–Present **Stochastic Optimal Control and Reinforcement Learning** (UCLouvain LINMA2222)
Master's course with approx. 15 students
- 2024–Present **Stochastic Processes: Estimation and Prediction** (UCLouvain LINMA1731)
Bachelor's course with approx. 80 students
- 2022–Present **System Identification** (UCLouvain LINMA2875)
Master's course with approx. 15 students
- 2025–Present **Signal Processing** (UCLouvain LELEC2900)
Bachelor's course with approx. 50 students
- 2022–Present **Seminar on Applied Mathematics** (UCLouvain LINMA2120)
Co-organizer of the weekly departmental seminar series

All of these activities involve close coordination with Teaching Assistants (TAs), laboratory technicians, and Master's student assistants. For large courses such as *Linear Control* and *Signal Processing*, I coordinate teams of up to 15 teaching staff per course.

During my Ph.D. and postdoctoral training I was involved in the teaching activities of several additional courses in the Mechanical Engineering and Electrical Engineering curricula. These courses include:

- 2020 **Coordinated Control of Multi-Agent Systems** (CU Boulder ECEN5008), graduate course
- 2016 **Dynamics** (UC Riverside ME103), undergraduate course
- 2016 **Mechanics of Materials** (UC Riverside ME110), undergraduate course
- 2017–2019 **Secure and Reliable Control Systems** (UC Riverside ME223), graduate course
- 2018 **Mechatronics** (UC Riverside ME133), undergraduate course

ADVISING AND RESEARCHERS SUPERVISION

I currently lead a research group composed of 6 researchers (Ph.D. students and postdoctoral fellows) and one laboratory technician. Below is a list of active researchers under my supervision:

- 2025–Present **Zhen Tang (Postdoctoral Researcher)**, UCLouvain
Project: Control-inspired optimization algorithms
- 2025–Present **Arthur Mélot (Ph.D. student)**, UCLouvain
Project: Algorithmic optimization for shared multi-modal transportation
- 2025–Present **Lingyu Zhang (Ph.D. student)**, Harbin Institute of Technology, China
Project: Data-driven pole placement for descriptor systems
- 2024–Present **Vijayanand Jaganath Digge (Ph.D. student)**, UCLouvain
Project: Learning-based control in resource-limited environments
- 2024–Present **Alexandre Thyron (Ph.D. student)**, UCLouvain
Project: Control-based methods to explain human reaching movements
- 2023–Present **Amir Mehrnoosh (Ph.D. student)**, UCLouvain
Project: Distributed learning for control

Each year, I oversee several Master's theses. The following is a list of students I have supervised to date.

- 2022–Present **Supervision of Master's Theses**, UCLouvain
 Direct supervision of more than 20 Master's theses
- Students: Gaspar Robert (2025-26), Tom Irgel (2025-26), Yanis Lahrach (2025-26), Yoris Godry (2025-26), Mohamed Saidi (2025-26), Luca Fantini (2025-26, University of Bologna), Arthur Mélot (2024-25), Nikola Rankovic (2024-25), Maxime Heuse (2024-25), Mary Jo El Bared (2024-25), Madeleine Vanderschelden (2024-25), Léa Ninite (2024-25), Arnaud Collette (2024-25), Antoine Springael (2024-25), Antoine Lemaire (2024-25), Romain Englebert (2024-25), Giuseppe Speciale (2024-25, University of Bologna), Alexandre Thyriion (2023-24), Aurélien Soenen (2023-24)

As a postdoctoral researcher and graduate student, I supervised the following researchers:

- 2021–2022 **Liliaokeawawa Cothren (Ph.D. student)**, CU Boulder
 Project: Perception-based gradient flow for feedback control
- 2021 **Molly Alvine (Undergraduate student)**, CU Boulder
 Project: Control of mobility-on-demand systems with electric vehicles
- 2021 **Killian Wood (Ph.D. student)**, CU Boulder
 Project: Stochastic optimization with decision-dependent distributions
- 2020 **Felipe Galarza-Jimenez (Ph.D. student)**, CU Boulder
 Project: Hybrid methods in online optimization
- 2017 **Yin-Cen Liu (Master's student)**, UC Riverside
 Project: RSSI-aided trajectory planning against GPS spoofing
- 2016 **Tommaso Menara (Master's student)**, UC Riverside
 Project: Strong structural controllability of networks

SCIENTIFIC SERVICE

Scientific and Professional Memberships

Institute of Electrical and Electronics Engineers (IEEE)
 IEEE Control Systems Society (CSS)
 International Federation of Automatic Control (IFAC)
 Society for Industrial and Applied Mathematics (SIAM)
 Logistics in Wallonia Competitiveness Cluster

Organization of Scientific Meetings and Events

- 2024–2027 **Publicity Chair**, European Control Conference (ECC) 2027
- 2025–2026 **Co-organizer**, 2026 Benelux Meeting on Systems and Control
- 2024 **Organizer**, Doctoral Workshop for the Graduate School on Systems and Control (SOCN)
 Title: “*Structure Learning in Critical Infrastructure Networks*”
- 2023 **Co-organizer**, Workshop at the American Control Conference (ACC)
 Title: “*Online Optimization Methods for Data-Driven Feedback Control*”
- 2018 **Co-organizer**, Mechanical Engineering Symposium, UC Riverside
 Title: “*Annual MEGSA Symposium*”

Editorial Roles

- 2024–Present **Associate Editor-at-Large**, IEEE Control Systems Society
- 2022–Present **Associate Editor**, IEEE Control Systems Society
- 2022–Present **Technical Program Committee Member**, IEEE Conference on Decision and Control

Research Funding Committees

2024 – Present **FRIA Evaluation Panel Member**, F.R.S.–F.N.R.S. (Belgian Research Funding Agency).

Ph.D. Committees

2022 – Present Member of 4 Ph.D. committees

Scientific Reviewing Activities

Reviewer of journals: *IEEE Transactions on Automatic Control* (IEEE TAC); *IEEE Transactions on Control of Network Systems* (IEEE TCNS); *IEEE Transactions on Control Systems Technology* (IEEE TCST); *Automatica*; *IEEE Control Systems Letters* (IEEE L-CSS); *Journal of Machine Learning Research* (JMLR); *SIAM Journal on Control and Optimization* (SICON); *IEEE Open Journal of Control Systems* (IEEE OJ-CSYS); *IEEE Robotics and Automation Letters* (IEEE RA-L); *IEEE Transactions on Intelligent Transportation Systems* (IEEE T-ITS); *IEEE Transactions on Smart Grid* (IEEE TSG); *Systems & Control Letters*; *SIAM Journal on Control and Optimization*; *IEEE Journal of Selected Topics in Signal Processing*; *Journal of Urban Technology*.

Reviewer of conferences: *IEEE Conference on Decision and Control* (IEEE CDC); *American Control Conference* (ACC); *European Control Conference* (ECC); *Learning for Dynamics & Control Conference* (L4DC); *IFAC World Congress*; *IFAC Workshop on Distributed Estimation and Control in Networked Systems*; *IEEE Conference on Automation Science and Engineering*; *IFAC Conference on Networked Systems* (NecSys).

INTERNATIONAL VISIBILITY

I have over 10 years of research experience, of which **over 7 years are in the U.S. across 4+ top research institutions**. I regularly hold international visiting positions to strengthen the global visibility and reach of my research group. I maintain a **strong international presence: I have published papers with over 20 co-authors from 8+ countries**; several of these authors are affiliated with US institutions. My research is regularly presented at major international conferences in the field (namely, IEEE CDC, ACC, ECC, and others). In fact, my work has been presented **at least one international conference every year since the beginning of my career**.

LANGUAGE PROFICIENCY

English	Full professional proficiency
French	Advanced, proficient for teaching (CEFR Level C1 per UCLouvain certification)
Italian	Native speaker

INVITED TALKS AND SEMINARS

The international recognition of my scientific contributions is reflected in frequent invitations to deliver talks and seminars at leading institutions worldwide. Below is a **selection of recent invited talks**:

EU Institutions:	<i>University of Groningen</i> , Netherlands (2025); <i>Brussels Institute for Advanced Studies (BrIAS)</i> , Belgium (2025); <i>Leibniz University Hanover</i> , Germany (2023); <i>KTH Royal Institute of Technology</i> , Sweden (2023); <i>LAAS-CNRS</i> , France (2022); <i>Mines ParisTech</i> , France (2022); <i>GIPSA-lab</i> , France (2021)
US Institutions:	<i>University of Michigan</i> , Ann Arbor, Michigan (2022); <i>Washington State University</i> , Pullman, Washington (2022); <i>University of Texas at Dallas</i> , Dallas, Texas (2021)
Research Labs:	<i>National Renewable Energy Laboratory (NREL)</i> , Golden, Colorado (2020); <i>Pacific Northwest National Laboratory (PNNL)</i> , Richland, Washington (2018)
Industry:	<i>General Electric Global Research</i> , Niskayuna, New York (2019); <i>Bosch Engineering North America</i> , Sunnyvale, California (2019)

PUBLICATIONS



During my academic career, **I have authored more than 40 papers**, including **19 papers in top scientific journals**, including the *IEEE Transactions on Automatic Control* (TAC), *IFAC Automatica*, *IEEE Transactions on Control of Network Systems* (TCNS), and *IEEE Transactions on Intelligent Transportation Systems* (T-ITS). I have authored **14 papers in prestigious peer-reviewed international conferences**, such as the *IEEE Conference on Decision and Control* (CDC), *American Control Conference* (ACC). My work has **received over 630 citations** (source: Google Scholar). I am the **first author in over 65% of my publications**; **70% of my papers are without my Ph.D. advisor**, demonstrating strong productivity and a high level of scientific independence.

Articles Under Review

- [R1] A. Mehrnoosh, G. Speciale, R. Brumali, G. Notarstefano, and **G. Bianchin**, “Model-free aggregative cooperative optimization via randomized gradient-free minimization and exploration momentum,” *IEEE Transactions on Control of Network Systems*, Nov. 2025, (Under review), arXiv:2508.03503 [\[link\]](#)
- [R2] B. Van Scoy and **G. Bianchin**, “Temporal variabilities limit convergence rates in gradient-based online optimization,” in *American Control Conference*, May 2026, (Under review), arXiv:2510.12512 [\[link\]](#)
- [R3] A. Mehrnoosh and **G. Bianchin**, “Two-point random gradient-free methods for model-free feedback optimization,” in *IFAC World Congress*, Jul. 2026, (Under review), arXiv:2509.11666 [\[link\]](#)
- [R4] A. Mehrnoosh, G. Speciale, R. Brumali, G. Notarstefano, and **G. Bianchin**, “ARGFree: A randomized gradient-free algorithm for aggregative cooperative optimization and applications to robotic formation,” in *European Control Conference*, Nov. 2025, (Under review)
- [R5] **G. Bianchin** and B. Van Scoy, “Feedback optimization of dynamical systems in time-varying environments: An internal model principle approach,” *IEEE Transactions on Automatic Control*, Jul. 2025, (Under review) arXiv:2508.03503 [\[link\]](#)
- [R6] **G. Bianchin** and J.-C. Delvenne, “The role of cycles in the resilience of dynamical networks: Applications to traffic control,” *IEEE Transactions on Control of Network Systems*, May 2025, (Under review) [\[link\]](#)
- [R7] **G. Bianchin** and E. Dall’Anese, “Event-triggered feedback optimization of LTI systems with applications to pandemic control,” *IEEE Control Systems Letters*, Aug. 2025, (Under review), [\[link\]](#)
- [R8] R. Anguluri and **G. Bianchin**, “Data-driven control of second-order models,” *IEEE Control Systems Letters*, Jun. 2025, (Under review)
- [R9] **G. Bianchin** and A. W. Al-Dabbagh, “Data-integrity attacks can destabilize data-driven control,” *IEEE Control Systems Letters*, Jun. 2025, (Under review)

Published Journal Articles

- [J1] **G. Bianchin**, M. Vaquero, J. Cortés, and E. Dall’Anese, “The role of network connectivity in distributed k -agreement protocols,” *Automatica*, Aug. 2026, (To appear) [\[link\]](#)
- [J2] **G. Bianchin** and B. Van Scoy, “The internal model principle of time-varying optimization,” *IEEE Transactions on Automatic Control*, Aug. 2024, (To appear) arXiv:2407.08037 [\[link\]](#)
- [J3] **G. Bianchin**, M. Vaquero, J. Cortés, and E. Dall’Anese, “ k -dimensional agreement in multiagent systems,” *IEEE Transactions on Automatic Control*, vol. 69, no. 12, pp. 8978–8985, Jul. 2024, (To appear) [\[link\]](#)
- [J4] **G. Bianchin** and F. Pasqualetti, “Navigation systems may deteriorate stability in traffic networks,” *IEEE Open Journal of Control Systems*, vol. 3, pp. 239–252, 2024, [\[link\]](#)
- [J5] **G. Bianchin**, M. Vaquero, J. Cortés, and E. Dall’Anese, “Online stochastic optimization for unknown linear systems: Data-driven controller synthesis and analysis,” *IEEE Transactions on Automatic Control*, vol. 69, no. 7, pp. 4411–4426, Jul. 2024, [\[link\]](#)
- [J6] E. Perotti, A. M. Ospina, **G. Bianchin**, A. Simonetto, and E. Dall’Anese, “Renewable-based charging in green ride-sharing,” *Scientific Reports*, vol. 15425, no. 13, Sep. 2023, [\[link\]](#)
- [J7] F. Avram, R. Adenane, L. Basnarkov, **G. Bianchin**, D. Goreac, and A. Halanay, “An age of infection kernel, an R formula, and further results for arino–brauer A, B matrix epidemic models with varying populations, waning immunity, and disease and vaccination fatalities,” *Mathematics*, vol. 11, no. 6, Dec. 2021, [\[link\]](#)
- [J8] L. Cothren, **G. Bianchin**, and E. Dall’Anese, “Online optimization of dynamical systems with deep learning perception,” *IEEE Open Journal of Control Systems*, vol. 1, pp. 306–321, Oct. 2022, [\[link\]](#)
- [J9] **G. Bianchin**, E. Dall’Anese, J. I. Poveda, D. Jacobson, E. J. Carlton, and A. Buchwald, “Novel use of online optimization in a mathematical model of COVID-19 to guide the relaxation of pandemic mitigation measures,” *Scientific Reports*, vol. 4731, no. 12, Jun. 2022, [\[link\]](#)
- [J10] F. Avram, R. Adenane, **G. Bianchin**, and A. Halanay, “Stability analysis of an eight parameter SIR-type model including loss of immunity, and disease and vaccination fatalities,” *Mathematics*, vol. 10, no. 3, p. 402, 2022, [\[link\]](#)

- [J11] **G. Bianchin**, J. I. Poveda, and E. Dall’Anese, “Online optimization of switched LTI systems using continuous-time and hybrid accelerated gradient flows,” *Automatica*, vol. 146, p. 110579, 2022, [\[link\]](#)
- [J12] K. Wood, **G. Bianchin**, and E. Dall’Anese, “Online projected gradient descent for stochastic optimization with decision-dependent distributions,” *IEEE Control Systems Letters*, vol. 6, pp. 1646–1651, 2021, [\[link\]](#)
- [J13] **G. Bianchin**, J. Cortés, J. I. Poveda, and E. Dall’Anese, “Time-varying optimization of LTI systems via projected primal-dual gradient flows,” *IEEE Transactions on Control of Network Systems*, vol. 9, no. 1, pp. 474–486, Mar. 2022,  **IEEE Transactions on Control of Network Systems Best Paper Award**, [\[link\]](#)
- [J14] F. Galarza-Jimenez, **G. Bianchin**, J. I. Poveda, and E. Dall’Anese, “Online optimization of LTI systems under persistent attacks: Stability, tracking, and robustness,” *Nonlinear Analysis: Hybrid Systems*, vol. 44, p. 101152, May 2022, [\[link\]](#)
- [J15] F. Galarza-Jimenez, J. Poveda, **G. Bianchin**, and E. Dall’Anese, “Extremum seeking under persistent gradient deception: A switching systems approach,” *IEEE Control Systems Letters*, vol. 6, no. 1, pp. 133–138, 2021, [\[link\]](#)
- [J16] Y.-C. Liu, **G. Bianchin**, and F. Pasqualetti, “Secure trajectory planning against undetectable spoofing attacks,” *Automatica*, vol. 112, p. 108655, 2020,  **IFAC Automatica Editor’s choice**, [\[link\]](#)
- [J17] **G. Bianchin**, Y.-C. Liu, and F. Pasqualetti, “Secure navigation of robots in adversarial environments,” *IEEE Control Systems Letters*, vol. 4, no. 1, pp. 1–6, 2020, [\[link\]](#)
- [J18] **G. Bianchin** and F. Pasqualetti, “Gramian-based optimization for the analysis and control of traffic networks,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 21, no. 7, pp. 3013–3024, 2020, [\[link\]](#)
- [J19] **G. Bianchin**, P. Frasca, A. Gasparri, and F. Pasqualetti, “The observability radius of networks,” *IEEE Transactions on Automatic Control*, vol. 62, no. 6, pp. 3006–3013, 2017, [\[link\]](#)

Published Peer-Reviewed Conference Proceedings

- [C1] **G. Bianchin** and B. Van Scoy, “The discrete-time internal model principle of time-varying optimization: Limitations and algorithm design,” in *IEEE Conf. on Decision and Control*, Dec. 2025, (To appear) [\[link\]](#)
- [C2] A. Mehrnoosh and **G. Bianchin**, “Optimization of linear multi-agent dynamical systems via feedback distributed gradient-descent methods,” in *American Control Conference*, Jul. 2025, (To appear) arXiv: 2403.18386 [\[link\]](#)
- [C3] **G. Bianchin** and J.-C. Delvenne, “Cycle families and resilience of dynamical networks,” in *American Control Conference*, 2024, pp. 5201–5206, [\[link\]](#)
- [C4] **G. Bianchin**, “Data-driven exact pole placement for linear systems,” in *IEEE Conf. on Decision and Control*, Singapore, Dec. 2023, pp. 685–690, [\[link\]](#)
- [C5] L. Cothren, A. M. Ospina, **G. Bianchin**, and E. Dall’Anese, “Online optimization of linear-time invariant dynamical systems with cost perception,” in *Asilomar Conference on Signals, Systems, and Computers*, 2022, pp. 1357–1361, [\[link\]](#)
- [C6] L. Cothren, **G. Bianchin**, and E. Dall’Anese, “Data-enabled gradient flow as feedback controller: Regulation of linear dynamical systems to minimizers of unknown functions,” in *Learning for Dynamics & Control*, Stanford, CA, Jun. 2022, pp. 234–247, [\[link\]](#)
- [C7] **G. Bianchin**, M. Vaquero, J. Cortés, and E. Dall’Anese, “Data-driven synthesis of optimization-based controllers for regulation of unknown linear systems,” in *IEEE Conf. on Decision and Control*, Austin, TX, Dec. 2021, pp. 5783–5788, [\[link\]](#)
- [C8] **G. Bianchin** and F. Pasqualetti, “Routing apps may cause oscillatory congestions in traffic networks,” in *IEEE Conf. on Decision and Control*, Jeju Island, Republic of Korea, Dec. 2020, pp. 253–260, [\[link\]](#)
- [C9] **G. Bianchin**, F. Pasqualetti, and S. Kundu, “Resilience of traffic networks with partially controlled routing,” in *American Control Conference*, Philadelphia, PA, USA, Jul. 2019, pp. 2670–2675, [\[link\]](#)
- [C10] **G. Bianchin** and F. Pasqualetti, “A network optimization framework for the analysis and control of traffic dynamics and intersection signaling,” in *IEEE Conf. on Decision and Control*, Miami, FL, USA, Dec. 2018, pp. 1017–1022, [\[link\]](#)

- [C11] T. Menara, **G. Bianchin**, M. Innocenti, and F. Pasqualetti, “On the number of strongly structurally controllable networks,” in *American Control Conference*, Seattle, WA, USA, May 2017, pp. 340–345, [\[link\]](#)
- [C12] **G. Bianchin**, P. Frasca, A. Gasparri, and F. Pasqualetti, “The observability radius of network systems,” in *American Control Conference*, Boston, MA, USA, Jul. 2016, pp. 185–190, [\[link\]](#)
- [C13] **G. Bianchin**, F. Pasqualetti, and S. Zampieri, “The role of diameter in the controllability of complex networks,” in *IEEE Conf. on Decision and Control*, Osaka, Japan, Dec. 2015, pp. 980–985, [\[link\]](#)
- [C14] **G. Bianchin**, A. Cenedese, M. Luvisotto, and G. Michieletto, “Distributed fault detection in sensor networks via clustering and consensus,” in *IEEE Conf. on Decision and Control*, Osaka, Japan, Dec. 2015, pp. 3828–3833, [\[link\]](#)

Book Chapters and Code Releases

- [M1] **G. Bianchin**, “Online primal-dual controller for the control of epidemic outbreaks,” [\[GitHub link\]](#), 2021, (Online; accessed 20-Sep-2021)
- [M2] **G. Bianchin**, “Online primal-dual controller for ramp metering in transportation systems,” [\[GitHub link\]](#), 2020, (Online; accessed 20-Sep-2021)
- [M3] **G. Bianchin** and F. Pasqualetti, “Time-delay attacks in network systems,” in *Cyber-Physical Systems Security*. Springer International Publishing, 2018, pp. 157–174, [\[link\]](#)
- [M4] **G. Bianchin** and F. Pasqualetti, “SUMO toolbox for Gramian-based optimization,” [\[GitHub link\]](#), 2018, (Online; accessed 23-Oct-2020)

Theses

- [T1] **G. Bianchin**, “Control-theoretic methods for the robustness of network systems: Application to traffic control and cyber-physical security,” Ph.D. dissertation, University of California Riverside, 2020, [\[link\]](#)
- [T2] **G. Bianchin**, “Coordinated control of mixed robot and sensor networks in distributed area exploration,” Master’s thesis, University of Padova, 2014, [\[link\]](#)