Manuel Boldrer

PhD Student

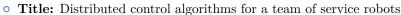
Via al Braidon, 19 38123 Trento, Italy $\bigcirc +39 \ 3490563578$ ⋈ manuel.boldrer@gmail.com ... Updated in August 2021



Education

Nov '18 - PhD Student in Mechatronics, 34th cycle, University of Trento, Italy.

Present • Supervisors: Daniele Fontanelli, Luigi Palopoli



• Research Interests: Multi-agent systems, Distributed control, Robotics.

Sep '21 - Feb '22

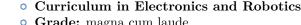
Visiting Scholar, University of California, Riverside, United States.



• Supervisor: Fabio Pasqualetti

• Research Activity: Networked system control, Reinforcement learning

2015-2018 Master's degree in Mechatronics Engineering, University of Trento, Italy.



• Grade: magna cum laude

• Master thesis: "Control of a Synchrotron with LMI-based Techniques".

- Advisor: Luca Zaccarian

2012-2015 Bachelor's degree in Industrial Engineering, University of Trento, Italy.



Methodological Curriculum

• Bachelor thesis: "Study of Lateral Vibrations in a Beam".

- Advisor: Daniele Bortoluzzi

Summer 2013 Study abroad experience, Dublin, Ireland.

• English course (4 weeks)

2006-2012 Secondary Education Diploma, Liceo Scientifico "L. Da Vinci", Trento, Italy.

Publications

Papers Under Review

M. Boldrer, A. Antonucci, P. Bevilacqua, L. Palopoli, D. Fontanelli, Multi-Agent Navigation in Human-Shared Environments: a Safe and Socially-Aware Approach, in Elsevier, Robotics and Autonomous Systems.

M. Boldrer, L. Palopoli, D. Fontanelli, A Unified Lloyd-based Framework for Multi-Agent Collective Behaviours, in Elsevier, Robotics and Autonomous Systems.

Journal Articles

- M. Boldrer, P. Bevilacqua, L. Palopoli, D. Fontanelli, Graph Connectivity Control of a Mobile Robot Network with Mixed Dynamic Multi-Tasks, in IEEE Robotics and Automation Letters, Feb., 2021.
- M. Boldrer, M. Andreetto, S. Divan, L. Palopoli, D. Fontanelli, Socially-aware Reactive Obstacle Avoidance Strategy based on Limit Cycle, in IEEE Robotics and Automation Letters, Feb. 2020.

Refereed Conference Publications

- [5] M. Boldrer, F. Riz, F. Pasqualetti, L. Palopoli, D. Fontanelli, Time-Inverted Kuramoto Dynamics for κ -Clustered Circle Coverage, In IEEE Conf. on Decision and Control (CDC), Dec. 2021.
- [4] M. Boldrer, D. Fontanelli, A. Antonucci, L. Palopoli, A Novel Framework for Multi-Agent Navigation in Human-Shared Environments, In Italian Institute of Robotics and Intelligent Machines Conference (I-RIM), Oct. 2021, (Best Student Paper Finalist).
- M. Boldrer, L. Palopoli, D. Fontanelli, Lloyd-based Approach for Robots Navigation in Human-shared Environments, In IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Oct. 2020.
- M. Boldrer, L. Palopoli, D. Fontanelli, Socially-aware Multi-agent Velocity Obstacle based Navigation for Nonholonomic Vehicles, In IEEE Computer Software and Applications Conference (COMPSAC), Jul. 2020.

[1] M. Boldrer, D. Fontanelli, L. Palopoli, Coverage control and distributed consensus-based estimation for mobile sensing networks in complex environments, In IEEE Conf. on Decision and Control (CDC), Dec. 2019.

Work Experiences

Oct '18 - Sep '20 Teaching support activity, held at University of Trento, Italy, (80 hours).

• Department: Information Engineering and Computer Science (DISI)

• Course: Systems Theory

Jun - Nov 2018 Scholarship, held at University of Trento, Italy.

• Title: Distributed estimation and control algorithms for a team of service robots

Language Skills

Italian Mother tongue

English Understanding: Listening (B2), Reading (B2). Speaking: Spoken interaction (B2), Spoken

production (B2). Writing: (B2)

Computer Skills

Languages C++, LATEX, MatLab, R, Ruby, Phyton

Other Software Ansys, Maple, Maplesim, Mathematica, NI LabVIEW, Blender, Microsoft Office Package

Driving license B

Sports Table tennis, Tennis, Football

Linkedin.com Manuel Boldrer - Professional profile.

Youtube Intelligent Robots at UNITN - Lab Channel.

Google Scholar Profile.