

# Luca Furieri - Curriculum Vitae

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## Personal Information

Date of birth: 11 October 1992  
Nationality: Italian  
Google Scholar ID: [https://scholar.google.com/citations?user=Sxta\\_doAAAAJ](https://scholar.google.com/citations?user=Sxta_doAAAAJ)  
ResearcherID: ABH-1926-2021

## Language Skills

Italian: Native  
English: Proficient (C2) CAE Grade A, Sep 2014  
French: Advanced (B2-C1) DELF A2, Jun 2006  
German: Upper-Intermediate (B2) B2 exam at Roth Jun 2019  
Japanese: Intermediate (B1) JLPT N3, Jan 2020

## Education

**Ph.D.**, in Information Technology and Electrical Engineering From: Nov 2016  
(**ETH Zurich**, Automatic Control Laboratory, Switzerland) To: Sep 2020  
Advisor: Professor **Maryam Kamgarpour**  
Date of Ph.D. defense: **28 September 2020**  
Ph.D. Thesis: [Optimality in Distributed Control from Convex Programming to Reinforcement Learning](#)

**Master thesis** in robotics From: Mar 2016  
(**ETH Zurich**, Autonomous Systems Laboratory, Switzerland) To: Sep 2016  
Thesis: *A new guidance law for fixed-wing UAVs in arbitrarily strong wind fields*

**Master's degree** in automation engineering From: Oct 2014  
(**University of Bologna**, Italy) To: Oct 2016  
Grade: 110/110 with honors, 29.80/30 average grade, top 1%

**Bachelor's degree** in automation engineering From: Oct 2011  
(**University of Bologna**, Italy) To: Oct 2014  
Thesis: *Trajectory planning for Swarms of Quadrotors*,  
original title in Italian: *Teoria del consenso e applicazione al problema del coordinamento del moto di robot*  
Grade: 110/110 with honors, 29.27/30 average grade

## Employment History

**Scientist and PhD supervisor — SNSF Ambizione Fellow**  
EPF Lausanne  
From: 1st Jan 2023 To: ongoing  
Principal Investigator of the project *Reliable machine learning for networked control*

**Postdoctoral Scientist at EPF Lausanne & Researcher at NCCR Automation**  
From: 1st Nov 2020 To: 31th Dec 2022  
Advisor: Professor **Giancarlo Ferrari-Trecate**

**Research Assistant & Ph.D. student at ETH Zurich**  
From: Nov 2016 To: Oct 2020  
Supervisor: Professor **Maryam Kamgarpour**

**Grants awarded** **Ambizione career grant**, Swiss National Science Fundation (SNSF) **2021 call**  
to manage my **research project**, hire and supervise PhD students. 758'108 CHF, 17%  
success rate.  
**ongoing.**

**Postdoc.Mobility grant**, Swiss National Science Fundation (SNSF) **March call, 2020**  
to spend 18 months at Harvard University, 77'700 CHF, 48% success rate.  
**Awarded**, Project P2EZP2-195625. **Offer declined by me** (Covid-19).

**Prizes, Awards, Fellowships** **IEEE Transactions on Control of Network Systems Best Paper Award** **Dec 2022**  
*awarded for the paper **Sparsity Invariance for Convex Design of Distributed Controllers**, to recognize the best paper published in the *IEEE Transactions on Control of Network Systems* in the period 2020-2021.*

**Best Student Paper Award @ ECC19**, finalist **Jun 2019**  
*awarded for the paper **On Separable Quadratic Lyapunov Functions for Convex Design of Distributed Controllers** presented at the 2019 European Control Conference (ECC19), as one of the best 5 student papers among 700+ accepted papers*

**O. Hugo Schuck Best Paper Award**, **Jun 2018**  
*awarded for the paper **Gone With The Wind: Nonlinear Guidance For Small Fixed-wing Aircraft in Arbitrarily Strong Windfields**, as the best application paper presented at the 2017 American Control Conference (ACC17)*

**Excellence Fellowship**, Collegio Superiore **From: Oct 2011**  
(University of Bologna, Italy) **To: Oct 2016**  
Admission through national competition in 2011 (14 awardees/year)

**High school competitions**, Mathematics Olympiad and Latin Certamina **2008-2011**  
Mathematics: qualification for the Italian finals  
Latin: top 5 at national competitions

## Teaching Activities

**EPF Lausanne**  
I am currently a guest lecturer of Multivariable control, **Autumns 2021 and 2022.**

**ETH Zurich**  
Linear System Theory **Autumns 2017, 2018, 2019**  
Control Systems II **Spring 2019**  
Advanced Topics in Control **Springs 2017, 2018**

Completed the *Learning to Teach* programme for Doctoral Teaching Assistants at ETH Zurich.

## Reviewing Activities

IEEE Transactions on Automatic Control (TAC)  
Automatica  
Transactions on Control of Network Systems (TCNS)  
Control Systems Letters (L-CSS)  
Nonlinear Analysis: Hybrid Systems (NAHS), Elsevier Journal  
Learning for Dynamics & Control Conference (L4DC)  
IEEE Conference on Decision and Control (CDC)  
American Control Conference (ACC)  
ACM International Conference on Hybrid Systems: Computation and Control (HSCC)

IFAC World Congress

**Active  
Memberships**

IEEE Member

**Patents**

**Apparatus for processing horticultural products**

**Jan 2016**

*International application number [PCT/IB2017/050405](#)*

**Programming  
Skills**

Python, PyTorch

MATLAB & Simulink

C/C++

Others: YALMIP & ACADO optimization toolboxes, experience with HIL (hardware-in-the-loop) simulations with Pixhawk/PX4, OpenCV