# Vaios Papaspyros

PhDc in Machine Learning & Robotics @ EPFL


## General Information

**Nationality:** Greek
**Birthday:** 28/04/1994

## Address

EPFL STI
SCI-STI-FMO1
ME B3 30
(Bâtiment ME)
Station 9
CH-1015 Lausanne
Switzerland

## Telephone

+41 78 860 11 13
(Mobile)

+41 21 693 56 80
(Work)

## Mail

(Academic)
**vaios.papaspyros@**
epfl.ch

(Personal)
**b.papaspyros@**
gmail.com

## Web & Git

Personal Website
Twitter
LinkedIn
Github
Bitbucket


## OS Preference

**Linux** ★★★★★
**MacOS** ★★★★★
**Windows** ★★★☆☆

## Languages

**Greek** ★★★★★
**English** ★★★★☆
**French** ★★☆☆☆

## Experience

06/18 - *Now* **Doctoral Assistant** — EPFL, Lausanne, Switzerland

**Team**: Mobots @ Francesco Mondada Group (FMO1).
**Research Topic**: Self-Adaptive Mixed Societies of Animals and Robots.
**Thesis director**: Francesco Mondada.
**Funding**: Swiss National Science Formation (SNF).

03/18 - 05/18 **Research Intern** — EPFL, Lausanne, Switzerland

**Team**: Mobots @ Laboratoire de Systèmes Robotiques (LSRO).
**Research Topic**: Self-Adaptive Mixed Societies of Animals and Robots.
**Supervisors**: Frank Bonnet, Francesco Mondada.

06/17 - 11/17 **Research Engineer** — MEAD, Univ. of Patras, Patras, Greece

**Team**: EuroSWARM team @ Applied Mechanics Lab.
**Research Topic**: Unmanned Heterogeneous Swarm of Sensor Platforms.
**Funding**: European Defense Agency (EDA) “EuroSWARM” Project.

05/16 - 10/16 **Research Intern** — Inria Nancy Grand-Est, Nancy, France

**Team**: LARSEN/Resibots.
**Internship Title**: Intelligent Trial & Error with the iCub humanoid robot.
**Research Topic**: Robot damage recovery with safety constraints.
**Supervisor**: Jean-Baptiste Mouret.
**Funding**: European Research Council (ERC) “ResiBots” Project.

## Education

06/18 - *Now* **Doctor of Philosophy - PhD Candidate** — EPFL, Lausanne, Switzerland
Robotics, Control, and Intelligent Systems.

09/12 - 11/17 **M.Eng in Computer Engineering & Science** — Univ. of Patras, Patras, Greece
**GPA:** 7.35 / 10
**Diploma Thesis Subject:** Safety-Aware Intelligent Trial-and-Error for Robot Damage Recovery.
**Grade:** 10/10.
**Supervisors:** Ioannis Hatzilygeroudis, Jean-Baptiste Mouret.
**Related Publications**: “Safety-Aware Robot Damage Recovery Using Constrained Bayesian Optimization and Simulated Priors”.

09/10 - 06/12 **High School** — Costeas-Geitonas School, Athens, Greece
**GPA:** 19.2 / 20

# Teaching

## • Winter Semester

02/21 - 06/21 **Basics of Mobile Robotics** EPFL
2h / week - 1st year Master of Robotics

02/20 - 06/20 **Basics of Mobile Robotics** EPFL
2h / week - 1st year Master of Robotics

## • Spring Semester

02/21 - 06/21 **Robotics practicals | Robot Operating System (ROS) basics** EPFL
4h / week - 1st year Master of Robotics

02/20 - 06/20 **Robotics practicals | Robot Operating System (ROS) basics** EPFL
4h / week - 1st year Master of Robotics

02/19 - 06/19 **Robotics practicals | Robot Operating System (ROS) basics** EPFL
4h / week - 1st year Master of Robotics

# Publications

## • Journals

Sep 2020 *A data-driven method for reconstructing and modelling social interactions in moving animal groups*, Escobedo R, Lecheval V, **Papaspyros V**, Bonnet F, Mondada F, Sire C, Theraulaz G. Philosophical Transactions of the Royal Society B

Aug 2019 *Bidirectional interactions facilitate the integration of a robot into a shoal of zebrafish Danio rerio*, **Papaspyros V**, Bonnet F, Collignon B, Mondada F. PLoS One

## • Conferences

May 2021 *Exploring a Handwriting Programming Language for Educational Robots*, El-Hamamsy L., **Papaspyros V.**, Kangur T., Mathex L., Giang C., Skweres M., Bruno B., Mondada F. Proceedings of the 12th International Conference on Robotics in Education

## • Workshops

Dec 2016 *Safety-aware robot damage recovery using constrained bayesian optimization and simulated priors*, **Papaspyros V**, Chatzilygeroudis K, Vassiliades V, Mouret JB. Proceedings of the International Workshop on "Bayesian Optimization" at NIPS 2016

# Reviewer

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|---|---|---|
| **IROS** | International Conference on Intelligent Robots and Systems. | 2020, 2021 |
| **IISA** | 10th International Conference on Information, Intelligence, Systems and Applications. | 2019 |
| **BayesOpt** | International workshop on bayesian optimization of the Neural Information Processing Systems (NIPS) Conference. | 2017 |

## Open-source project contributions

C/C++ **Co-author to robot_dart**
robot_dart is a flexible and generic C++11 wrapper for DART and is suitable for evolutionary computation.

C/C++ **Contributor to limbo**
limbo is a highly templated C++11 Bayesian optimization framework.

## Honors & Awards

05/2018 **SwissZebra Conference**
3rd prize for best poster (100 CHF).

## Programming skills

Advanced **C & modern C++, Boost, Eigen, Python, LaTeX, Robot Operating System (ROS), Matlab/Octave, bash scripting, Policy-based design**

Intermediate **OpenMP, CUDA, OpenGL, Java, MySQL & Sqlite, HTML 5, CSS, PHP, Javascript**

## Interests

- Machine Learning & AI
- Robotics
- Programming
- Basketball & Music

*Vaios Papaspyros*