

## Joseph Junior Penlap Tamagoua

2004 route des lucioles, BP 93 France

Tel : +33 753635506 / 237 679406041

[joseph.penlap@inria.fr](mailto:joseph.penlap@inria.fr)

<https://joseph-penlap.github.io/>

## About me

My dedication has been recognized with awards, praise and extra responsibilities. I have worked in busy, pressurized environments where high standards are expected and always looking to learn new skills, take on extra responsibilities and grow professionally.

## EDUCATION

---

Oct 2022-ongoing **PhD in Applied Mathematics**, Côte d'Azur University, France: Ecophysiological modeling of plant-nematode interactions to understand plant tolerance.

June 2022 **M.sc Mathematical Sciences**, option: Data Science, African Institute for Mathematical Sciences (AIMS), Cameroon, [www.nexteinstein.org](http://www.nexteinstein.org).

July 2021 **M.sc Mathematics**, option: Analysis, University of Dschang, Cameroon.

July 2019 **B.sc Mathematics and computer science**, University of Dschang, Cameroon.

## RESEARCH INTERESTS

---

### Development of mathematical models in population dynamics.

- Dynamical systems (ODEs, PDEs).
- Mathematical analysis (model reduction, stability, calibration).
- Numerical simulations (parameter estimation, control strategies).

### Main applications.

- Automatic control (estimation, identification, regulation, optimal control).
- Agro-ecology engineering for plant health protection.
- Biology mathematical modeling.
- Biological control, crop protection.

## WORK EXPERIENCE

---

Oct 22-Sept 25 **Doctoral Researcher**, Côte d'Azur University, Inria Sophia Antipolis, member of an INRAE-Inria research team: INRAE (ISA/M2P2) & Inria (Biocore), France.

Jan 23-Apr 23 **Teaching Assistant**, Côte d'Azur University, valrose, France: Providing tutorials in Mathematical Analysis to third level students (28 hours/year).

Apr 19-Jul 21 **Research Assistant**, University of Dschang, Cameroon: Providing support to research teams of URMA (Mathematics Research Unit).

May 20 **FERED Protocol chief at the department of Mathematics and computer science**, University of Dschang, Cameroon.

## PROJECTS

---

Oct22-Sept 25 Ecophysiological modeling of plant-nematode interactions to understand plant tolerance, DSABNS poster, Côte d'Azur University, Inria, INRAE, CNRS, France.

Apr-Jun 22 Modeling the dynamics of a forest environment: role of water cycle, Master Thesis, AIMS-Cameroon.

Feb-Mar 22 Epistatic interactions between sickle-cell disease and alpha-thalassemia, group talk, AIMS-Cameroon.

Jan-Jul 21 Spaces of locally uniformly bounded functions and applications, Master Thesis, University of Dschang.

## TALKS & ADDITIONAL TRAINING

---

**Attended conferences:** Talks and posters presented abroad during some seminars organized by a committee.

- Feb 5-8, 23 14<sup>th</sup> conference on Dynamical Systems Applied to Biology and Natural Sciences (DSABNS), Bilbao, Spain.
- Oct 3-6, 22 Biocore seminar on automatic control and dynamical systems theory to artificial ecosystems, Porquerolles island in Hyères, France.

**Selected seminars:** an average one hour presentation given by researchers, PhD students monthly.

- Jan 23 - till PhD talks based on various subjects, Sophia Antipolis, France.
- Oct 22 - till Biocore seminars on modeling and control of ecosystems, Sophia Antipolis, France.

## SKILLS

---

Qualities	Teamwork, Problem solver, Leadership.
Languages	French (mother language), English (professional language).
Software	L <sup>A</sup> T <sub>E</sub> X, Python, SageMath, R, Berkeley Madonna, Matlab.

## AWARDS

---

Oct 22-Sept 25 **INRAE-Inria PhD scholarship in France.**

Sept 21-Jul 22 **MasterCard Foundation Scholarship for studies at AIMS.**

Dec 18-19-20-21 **President Paul Biya's academic excellence award:** This is the academic excellence bonus granted to the best students of Cameroonian public and private institutions by the president of the Republic of Cameroon.

Jan 20 **National winner prize OUC Africa:** The OUC (Olympiades Universitaires du CAMES) competition was created to arouse emulation and excellence among students of various specializations in the CAMES (Conseil Africain et Malgache pour l'enseignement Supérieur) space, whether they are institutions of higher education and research, public or private.

## PhD directors

---

### Frédéric Grogard

*Researcher, HDR, PhD*  
[Frederic.grogard@inria.fr](mailto:Frederic.grogard@inria.fr)  
2004 Route des Lucioles BP 93  
06902 Sophia Antipolis Cedex  
[www.inria/Biocore.fr](http://www.inria/Biocore.fr)

### Valentina Baldazzi

*Researcher, HDR, PhD*  
[valentina.baldazzi@inrae.fr](mailto:valentina.baldazzi@inrae.fr)  
400, Route des Chappes BP 167  
06903 Sophia-Antipolis Cedex  
[www.inrae/ISA-M2P2.fr](http://www.inrae/ISA-M2P2.fr)

### Suzanne Touzeau

*Researcher, PhD*  
[suzanne.touzeau@inrae.fr](mailto:suzanne.touzeau@inrae.fr)  
400, Route des Chappes BP 167  
06903 Sophia-Antipolis Cedex  
[www.inrae/ISA-M2P2.fr](http://www.inrae/ISA-M2P2.fr)