

Joseph Junior Penlap Tamagoua

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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-Till **PhD in Engineering Sciences**, 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.
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 14th 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.

AIMS Seminars: one hour presentation given by guests (professor, AIMS alumni) invited by AIMS.

- Mar 22 Focused ultrasound mediated technologies towards precision medicine for treatments, AIMS Cameroon, Cameroon.
- Feb 22 Model selection for high-dimensional interactive problems, AIMS Cameroon, Cameroon.
- Nov 21 Inference about complex relationships based on DNA mixtures, AIMS Cameroon, Cameroon.
- Jul 21 A maximum likelihood method to estimate haplotype frequencies and prevalence alongside multiplicity of infection from SNPs data, AIMS Cameroon, Cameroon.

SKILLS

Qualities	Teamwork, Problem solver, Leadership.
Languages	French (mother language), English (professional language).
Software	Matlab, L ^A T _E X, Python, SageMath, R, Berkeley Madonna.

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	Valentina Baldazzi	Suzanne Touzeau
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