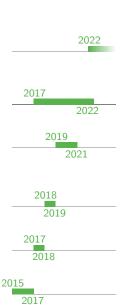
Juliette Luiselli

56, bvd Niels Bohr 69 100 Villeurbanne ☑ juliette.luiselli@inria.fr ⑤ juliette.luisel.li



Education

Initial training

PhD thesis, INSA Lyon & INRIA, Lyon

Under the supervision of Guillaume Beslon and Nicolas Lartillot

ENS Diploma, École Normale Supérieure, Paris Biology major, Computer Sciences minor

Interdisciplinary Master in Life Sciences, ENS, Paris

Major Ecology & Evolution : Evolutionary Biology, Adaptive Dynamics, Evolutionary Ecology, Computational Biology, etc.

Bachelor of Science in Computer Sciences, ENS, Paris

Compilation, Algorithms, Databases, Machine Learning, Random structures, etc.

Bachelor of Science in Biololgy, ENS, Paris

Bioinformatics, Biostatistics, Molecular Biology, Evolution, Genomics, etc.

Higher School Preparatory Classes: Biology, Chemistry, Physics, Mathematics and Earth Sciences, Lycée Saint-Louis, Paris

Continuing training

February 2023

The Genomics of Transposable Elements., IBENS, Paris

Winter school for PhD students, by PSL Qlife. Included a poster presentation.

Mar – April 2022

Computational Biology, Utrecht University, Utrecht

MSc course by Paulien Hogeweg

Research experiences

2022

Investing the influence of effective population size on genome architecture,

INSA Lyon & INRIA, Lyon, PhD thesis

Under the supervision of Guillaume Beslon and Nicolas Lartillot

Febr 2022 – June 2022

Multilevel stochastic error correction: the role of fission/fusion dynamics in maintaining genome integrity of mitochondria, *Utrecht University*, Utrecht

Theoretical Biology and Bioinformatics Team, supervised by Paulien Hogeweg

2019 – 2022

Studying the genome architecture with Aevol, INRIA, Lyon

Beagle Team, supervised by Guillaume Beslon

3 internships, studying the role of transposable elements, population size, and sex and recombination on genome structure.

Febr – June 2020

Distinguishing different forms of competition in a mechanistic model of eco-evolutionary dynamics, *Imperial College*, London

Silwood Park - Supervised by James Rosindell

June – Aug 2018	The Cretaceous-Paleogene biocalcification crisis, <i>Université Pierre et Marie Curie</i> , Paris, CR2P Supervised by Silvia Gardin
Sept 2017 – May 2018	Experimental evolution in a fluctuating environment , <i>Institut de Biologie de l'École Normale Supérieure</i> , Paris Team of Henrique Teotonio
	Conferences
Nov 2023	Talk at ETEE 2023 , Empirism & Theory in Ecology and Evolution, Saclay, Talk on Genome streamlining
July 2023 	Poster presentation at SMBE , <i>Meeting of The Society for Molecular Biology & Evolution</i> , <i>Ferrara</i> , Poster presentation on genome streamlining
June 2023	Invited speaker at Evolution , <i>Evolution</i> , <i>Albuquerque</i> , Talk on Detecting the ecological footprint of selection in comparative phylogeographic datasets
June 2022 	Co-animation of CPM cell modelling workshop , <i>NLSEB PhD/Post-doc meeting</i> , Discovery workshop of CPM simulations for biologists.
	Teaching experiences
Oct 2022 – Feb 20 <u>24</u>	Project supervision of 5^{th} year students, INSA Lyon Supervision of 3 students in final year of engineering school for a machine learning project
Oct 2022 – Jan 2024	${f C}^{++}$ and Python practicals, INSA Lyon ${f C}^{++}$ and Python discovery with 3^{rd} and 4^{th} year students
2023	Project supervision of 4 th year students , <i>INSA Lyon</i> Supervision of 2 groups of 5 students for a software development and machine learning project
Oct 2022 – Jan 2023	Mathematical and software tools, <i>IUT Gratte Ciel</i> , Lyon Practicals with first year undergraduate students
Sept 2018 – Febr 2020	Weekly official undergraduate Biology examiner, Lycée Saint-Louis, Paris Testing groups of 3 students each week on their biology and earth sciences knowledge
Sept 2017 – Juin 2019	Private lessons for high school and higher school preparatory classes students Mathematics, Physics, Chemistry, Biology, German
	Associative and administrative commitments

Elected member of the center committee, Lyon Representing PhD students and other non-permanent workers at the INRIA Lyon center committee.

Femmes & Sciences, Lyon

Various interventions with children and teenagers to promote scientific careers for women.

Sept 2021 - Janv 2022

Tutoring and sciencific popularization, *Primary and secondary schools*, Paris Accompaniment of students with difficulties in secondary school ("ECLOR" association) and discovery of the theory of evolution and scientific method in primary school ("La main à la pâte" association)

20<u>19 -</u> 2021

Elected representative student, IBENS, Paris

Representing students of the biologiacl department at the ENS for all interactions with the teaching staff and the administration.

Dec 2018 - Nov 2020

Elected member of the Délégation Générale, ENS, Paris

The *Délégation Générale* is a group of 4 students who are the main interface bewteen students and the school administration. We are managing the student accomodations, storage rooms and other shared spaces, and taking part to the long term planification of accomodation management. Overall work is described in both year's activity reports (2019 and 2020). Notable contribution to a comprehensive report on the state of school housing and to a proposal for reform of the housing system.

July 2019

Volunteer in the international Mathematical Models in Ecology and Evolution conference, *INRIA*, Lyon, France

Helping for the organization of the MMEE conference and attending presentations.

June 2018 – Jan 2019

Elected member of the student office (Responsible for Arts), *ENS*, Paris The student office is a group of 13 students organizing most of the student cultural life at school.

Skills

Computer Linux, C++, Python (pandas, pytorch, django), JavaScript, OCaml, R, SQL, HTML

Languages French (native), English (fluent), German (fluent), Esperanto (beginner)

Hobbies Volleyball, Fantasy books, Video games, Climbing, Wikipedia

Publications

- [1] **J. Luiselli**, P. Banse, D. P. Parsons, T. Grohens, M. Foley, L. Trujillo, J. Rouzaud-Cornabas, C. Knibbe, and G. Beslon. Forward-in-time simulation of chromosomal rearrangements: The invisible backbone that sustains long-term adaptation. *Molecular Ecology*, december 2023.
- [2] **J. Luiselli**, I. Overcast, A. Rominger, M. Ruffley, H. Morlon, and J. Rosindell. Detecting the ecological footprint of selection. *bioRxiv*, 2023. *in review*.
- [3] **J. Luiselli**, J. Rouzaud-Cornabas, N. Lartillot, and G. Beslon. Genomes streamlining in prokaryotes: effect of mutation rate and population size on genome size reduction. 2023. *in prep*.