

Théotime Grohens

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Education

- 09/2019 – now **Ph. D. in Computer Science**, *Inria Beagle*, INSA Lyon - Inria, Lyon.
The goal of my Ph.D. is to understand the role of epistatic interactions in adaptive evolution. For my current project, I'm focusing on the coupling between gene transcription and the DNA supercoiling gene regulation system. To this end, I use and/or develop artificial evolution platforms, such as **Aevol** and **EvoTSC**, to perform *in silico* evolution experiments.
- 2018 – 2019 **Master 2 (M.Sc.) in Life Sciences**, *summa cum laude*.
Interdisciplinary Master's in Life Sciences (IMaLiS).
- 2015 – 2017 **Master (M.Sc.) in Computer Science**, *cum laude*.
Parisian Master of Research in Computer Science (MPRI).
- 2014 – 2015 **Licence (B.Sc.) in Computer Science**, *magna cum laude*.
École normale supérieure and Université Paris 7-Diderot, Paris.
- 2014 – 2019 **École normale supérieure**, *Computer Science department*, Paris, ranked 2nd.
- 2012 **Scientific Baccalauréat**, *Lycée Louis-le-Grand*, Paris, mention *Très Bien*.

Publications

Journal Papers

- Artificial Life (to appear)** **Théotime Grohens**, Sam Meyer, and Guillaume Beslon.
A Genome-Wide Evolutionary Simulation of the Transcription-Supercoiling Coupling.
Extended version of the ALIFE 2021 conference paper.
- C. R. Acad. Sci.** S. Gaubert; M. Akian; X. Allamigeon; M. Boyet; B. Colin; **T. Grohens**; L. Massoulié; D. P. Parsons; F. Adnet; É. Chanzy; L. Goix; F. Lapostolle; É. Lecarpentier; C. Leroy; T. Loeb; J.-S. Marx; C. Télion; L. Tréluyer; P. Carli.
Understanding and monitoring the evolution of the Covid-19 epidemic from medical emergency calls: the example of the Paris area.

Conference Papers

- ALIFE 2021** **Théotime Grohens**, Sam Meyer, and Guillaume Beslon.
A Genome-Wide Evolutionary Simulation of the Transcription-Supercoiling Coupling.
- PPDP 2018** José Fragoso Santos, Petar Maksimovic, **Théotime Grohens**, Julian Dolby, and Philippa Gardner.
Symbolic Execution for JavaScript.

Talks

- Nov. 2021 **CompSysBio Winter School, 2021**, Aussois.
The transcription-supercoiling coupling plays an important role in the evolution of genome structure.
- Jul. 2021 **ALIFE 2021**, Prague (virtual).
Presentation of our paper at the ALIFE 2021 conference.
- Nov. 2019 **GDR AIEM**, Toulouse.
How to reduce a genome?

Teaching

- Spring 2022 **C++ Programming**, *IUT Lyon 1*, 2nd year course, 26h.
Fall 2020 & 2021 **Parallel Programming (TA)**, *INSA Lyon*, 5th year course, 22h.
Fall 2020 & 2021 **C++ Programming (TA)**, *INSA Lyon*, 3th year course, 16h.
Fall 2020 **Tutoring for last-year student projects**, *INSA Lyon*, 5th year course, 10h.
Fall 2019 & 2020 **Introduction to Theoretical Computer Science**, *INSA Lyon*, 4th year course, 12h.
Fall 2019 **Algorithms for Bioinformatics**, *INSA Lyon*, 4th year course, 10h.
2015 – 2017 **Oral examiner**, *Lycée Louis-le-Grand*, Paris, France.
Training *prépa* students for math oral exams (60 hours a year).

Service

- 2020 – now **PhD Students Representative**, *Doctoral School InfoMaths*, Lyon, France.
I represent the ~300 PhD students in maths and computer science in Lyon at the Doctoral School.

Research Visits

- 2019 **5-month research internship**, *Department of Zoology*, University of Oxford, Oxford.
An evolutionary approach of defective interfering viral particles.
Supervised by **Prof. Stu West**.
- 2018 **3-month research internship**, *Department of Computing*, Imperial College, London.
Cosette: Symbolic Execution for JavaScript
Supervised by **Prof. Philippa Gardner**.
- 2017 **5-month research internship**, *ISIR*, Université Paris 6 (UPMC), France.
Learning conditional cooperation in evolutionary swarm robotics.
Supervised by **Prof. Nicolas Bredeche** and **Prof. Jean-Baptiste André**.
- 2016 **5-month research internship**, *CUPLV*, University of Colorado, Boulder, USA.
Type-intertwined symbolic analysis of JavaScript programs.
Supervised by **Prof. Bor-Yuh Evan Chang**.
- 2015 **2-month research internship**, *BEAGLE team*, Inria, Lyon, France.
Introns-Exons in Aevol: specification, implementation, experimental study.
Supervised by **Prof. Guillaume Beslon**.

Industry Experience

- 2018 **3-month R&D internship**, *Google*, Munich, Germany.
At Google, I worked on **V8**, the JavaScript engine that powers the **Google Chrome** web browser.
- 2017 – 2018 **5-month R&D internship**, *HireSweet*, Paris, France.
At HireSweet, I built a tool for accurately classifying and labeling e-mails using **NLP** techniques.

Languages

French Native speaker
German Intermediate

English Full professional proficiency
Italian Intermediate