# Paul Cousin

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#### Education

SISSA & ICTP & PoliTO & UP Cité & Sorbonne & Paris Saclay

International Master's Degree in Physics Of Complex Systems

Sep. 2023 - Ongoing

Trieste - Turin, Italy & Paris, France

Univ. Grenoble Alpes & Univ. of North Carolina at Chapel Hill

Jan. 2021 - May 2023

International Bachelor's Degree in Physics

Grenoble, France & Chapel Hill, USA

Sep. 2011 - May 2013

Metz, France

Lycée de la Communication

Advanced Audiovisual Technician's Certificate, Specialized in Editing

2021 - 2024

**Self-Education** | Certified Online Courses

Santa Fe Institute

• Introduction to Complexity &

• Introduction to Dynamical Systems and Chaos  ${\cal O}$ 

• Fractals and Scaling &

• Computation in Complex Systems &

• Introduction to Mathematical Thinking (Stanford University)

• Machine Learning (Stanford University)

• Foundations & Applications of Humanities Analytics &

• Nonlinear Dynamics: Mathematical and Computational Approaches &

• Origins of Life &

• Learn Python 3 Course (Codecademy) &

• Learn JavaScript Course (Codecademy) &

• The Git & Github Bootcamp (Ûdemy)

# Internship

# Laboratoire Jean Kuntzmann (Applied Mathematics & Informatics)

June - July 2022

Excellence Internship granted by the Université Grenoble Alpes

Grenoble, France

## Publications

P. Cousin and A. Maignan, "Organic Structures Emerging From Bio-Inspired Graph-Rewriting Automata," 2022 24th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC), Hagenberg / Linz, Austria, 2022, pp. 293-296, doi: 10.1109/SYNASC57785.2022.00053.

P. Cousin, "Triangular Automata: The 256 Elementary Cellular Automata of the 2D Plane," Complex Systems, 33(2), 2024.

### **Projects**

Triangular Automata | Mathematica, HTML/CSS, Javascript

2023 - 2024

• Triangular Automata Website

• Triangular Automata Mathematica Package

Graph-Rewriting Automata | Mathematica, Python, Jupyter Book

2022

• Graph-Rewriting Automata Website

• GRA Python Package

• OEIS entries: A371844, A371931

• GRA Mathematica Package

### Work Experience

Founder & President

Nurseryman 2017 - 2020

Creation of a professional activity in agriculture

Verrue, France 2016 - 2018

Association invested in circular economy for ecology and social fairness

Loudun, France

Logistics Coordinator

Aug. 2015 - July 2016

Agricultural training organization promoting sustainable practices

Grasse, France

## Skills

Programming: Mathematica, Python, LATEX, HTML/CSS, JavaScript, VS Code, GitHub

Arts: Music &, Video Production &

Languages: French, English, Italian, Spanish, Esperanto native

fluentintermediate