

# CURRICULUM VITÆ

## **Antoine VENDEVILLE**

Born on April 23<sup>rd</sup>, 1994 in Paris, France (29 years old).

### **Post-doctoral researcher**

Médialab, Sciences Po Paris

### **Supervisory team**

Pedro Ramaciotti Morales

### **Other affiliations**

Paris Institute of Complex Systems

Digital Speech Lab

### **Contact**

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Google Scholar profile

## ACADEMIC POSITIONS

### **2023-2025**

Post-doctoral researcher at Médialab Sciences Po, Paris. AI-Political Machines project, supervised by Pedro Ramaciotti Morales. Research topics: mathematical modeling of political opinions, interactions in online social platforms, and algorithmic recommendations.

### **2019-2023**

PhD student, University College London, Department of Computer Science, Centre for Doctoral Training in Cybersecurity. *The echo chamber effect in social networks: theoretical analysis and steering strategies*. Supervised by Dr. Benjamin Guedj and Dr. Shi Zhou.

### **2019**

Research assistant, Sorbonne Université. Department of Computer Science (LiP6), team NPA. Supervised by Anastasios Giovanidis, Bruno Baynat, Clémence Magnien. Duration 5 months.

### **2018**

Research assistant, Sorbonne Université. Department of Computer Science (LiP6), team NPA. Supervised by Anastasios Giovanidis, Bruno Baynat, Clémence Magnien. Duration 5 months.

## OTHER AFFILIATIONS

- Paris Institute of Complex Systems.
- Digital Speech Lab at University College London.

## RESEARCH VISITS

**2023** IFISC, University of the Balearic Islands, Palma de Mallorca (1 week).

**2022** LiP6, Sorbonne Université, Paris (3 months).

## PUBLICATIONS

### 2023

- A. Vendeville, S. Zhou and B. Guedj. Discord in the voter model for complex networks. *Physical Review E*, 109(2), 024312. [Link](#).
- A. Vendeville, A. Giovanidis, E. Papanastasiou and B. Guedj. Opening up echo chambers via optimal content recommendations. *Proceedings of Complex Networks and Their Applications XI*, 2023. [Link](#).

### 2022

- A. Vendeville, B. Guedj and S. Zhou. Towards control of opinion diversity by introducing zealots into a polarised social group. *Proceedings of Complex Networks and Their Applications X*, 2022. [Link](#).

### 2021

- A. Giovanidis, B. Baynat, C. Magnien and A. Vendeville. Ranking Online Social Users by Their Influence. *IEEE/ACM Transactions on Networking*, 2021. [Link](#).
- A. Vendeville, B. Guedj and S. Zhou. Forecasting elections results via the voter model with stubborn nodes. *Applied Network Science* 6, 1, 2021. [Link](#).

### 2019

- A. Giovanidis, B. Baynat and A. Vendeville. Performance Analysis of Online Social Platforms. *Proceedings of IEEE Conference on Computer Communications*, 2019. [Link](#).

## TALKS AND PRESENTATIONS

### 2023

- Echo chambers and opinion diversity in the Voter Model: towards regulation strategies for social networks. Presented on November 7, 2023 at the IFISC in Palma de Mallorca.
- Opening up Echo Chambers via Optimal Content Recommendation. Presented on April 25, 2023 at the MédiaLab Sciences Po Paris.

- Opening up Echo Chambers via Optimal Content Recommendation. Presented on April 20, 2023 at the [NetPLACE](#).
- Opening up Echo Chambers via Optimal Content Recommendation. Presented on April 14, 2023 at the Data Natives seminar at City University, London.

## 2022

- Opening up Echo Chambers via Optimal Content Recommendation. Presented on November 8, 2022 at [Complex Networks 2022](#).
- Active links in the voter model with zealots, poster presented on October 20, 2022 at [Conference on Complex Systems](#).
- Recommendation of content to mitigate the echo chamber effect, poster presented on October 17, 2022 at [Conference on Complex Systems](#).
- Opening up Echo Chambers via Optimal Content Recommendation. Presented on 29, 2022 at Centre d'Economie de la Sorbonne, for the [Networks and Games](#) seminar.
- Fighting political echo chambers via content recommendation: Method and application to the 2017 French presidential elections, presented on June 29, 2022 at the [Mediterranean School of Complex Networks \(MSCX\)](#).
- Depolarising Social Networks: Optimisation of Exposure to Adverse Opinions in the Presence of a Backfire Effect, presented on April 12, 2022 at Sorbonne Université to the [Complex Networks](#) and [NPA](#) teams.
- Voter model with zealots for opinion control and forecast of election results, presented on January 7, 2022 at University College London, for the Information and Decision Systems research group ([IDS](#)).

## 2021

- Towards control of opinion diversity by introducing zealots into a polarised social group, poster presented on December 1, 2021 at [Complex Networks 2021](#).
- Voter Model with Stubborn Agents: from Theoretical Solutions to Prediction of Political Elections, presented on July 5, 2021 at [Networks 2021](#).

## SUPERVISION

**2021** Benjamin Guedj and I supervised Valentin Kilian for a 2 months research internship on opinion dynamics at Inria.

## TEACHING

**2019-2023** Teaching assistant at University College London for [Complex Networks and Web \(COMP0123\)](#). 30h per academic year, 120h total.

**2020-2021** Teaching assistant at University College London for [Introductory Programming \(COMP0066\)](#). 30h.

**2013-2017** Private tutor of mathematics for high school students in Paris.

## ACADEMIC ENGAGEMENT

I am a member of the Complex Systems Society. I was a student volunteer at INFO-COM 2019.

I have reviewed papers for the following journals.

- Nature Scientific Reports (5 papers, 2020-2022).
- PLOS ONE (1 paper, 2022).
- Computer Communications (1 paper, 2022).
- Proceedings of the Royal Society A (1 paper, 2021).

## FUNDING

My post-doctoral research project at Sciences Po is funded by the McCourt institute. My PhD was funded by the UK EPSRC. In 2023, I received the yrCSS Bridge Grant, which fosters collaborations between young researchers.

## EDUCATION

**2018-2019** Master 2 Data Science, Université Claude Bernard, Lyon.

**2017-2018** Master 2 Mathematical Modelling, Sorbonne Université.

**2015-2017** Master 1 Mathematics and Applications, Sorbonne Université.

**2012-2015** Bachelor in Mathematics and Applications, Sorbonne Université.