Ernest van Wijland

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Education

PhD Computer Science   **IRIF, Université Paris-Cité**
Paris, France   *2024 – Present*

- PhD student under Claire Mathieu and Vincent Cohen-Addad's supervision.

MSc Computer Science, BSc Mathematics   **École Normale Supérieure**
Paris, France   *2020 – 2024*

- Graduated both the MSc (MPRI) and the BSc (double major in Mathematics and Computer Science) with highest honors.

Preparatory Class   **Lycée Louis-le-Grand**
Paris, France   *2018 – 2020*

Publications

A $(4+\varepsilon)$-Approximation for Euclidean k-Means via Non-Monotone Dual Fitting   **STOC**
Charikar, Cohen-Addad, Gao, Grandoni, Lee, Van Wijland   *2026*

An Improved Greedy Approximation for (Metric) k-Means   **FOCS**
Charikar, Cohen-Addad, Gao, Grandoni, Lee, Van Wijland   *2025*

Faster Approximation Scheme for Euclidean k-TSP   **SoCG**
Ernest van Wijland, Hang Zhou   *2024*

Maximizing Nash Social Welfare in 2-Value Instances: Delineating Tractability   **MOR Journal**
Akrami et al.   *2023*

Maximizing Nash Social Welfare in 2-Value Instances   **AAAI**
Akrami et al.   *2022*

Research experience

Approximation Algorithms for Clustering   **IRIF (Université Paris-Cité)**
Paris, France   *2024 – Present*

Currently working under Claire Mathieu and Vincent Cohen-Addad's supervision at IRIF on finding approximation algorithms for clustering problems.

Approximating TSP generalizations   **IRIF (Université Paris-Cité)**
Paris, France   *2023 – 2024*

Worked for a year under Claire Mathieu and Hang Zhou's supervision at IRIF on finding fast approximation schemes for generalizations of the TSP, in Euclidean spaces and general metric spaces.

Euclidean CVRP, k-TSP   **LIX (Polytechnique)**
Palaiseau, France   *2023*

Worked for a semester under Hang Zhou's supervision in Polytechnique on finding faster approximation schemes for the Euclidean CVRP and k-TSP.

Approximating 2-WECSS   **THL (EPFL)**
Lausanne, Switzerland   *2022*

Worked for a semester under Ola Svensson's supervision in the Combinatorial Optimization team at EPFL on finding a better than 2 approximation for 2-WECSS.

- **Fair Division for additive instances**   **AGT (Max Planck Institut)**
  Sarrebruck, Germany   *2021*

  Worked for two months under Kurt Mehlhorn's supervision in the Algorithmic Game Theory team of the MPII on the Fair Division problem for additive instances.
- **Spectrum of heavy-tailed random matrices**   **DMA (École Normale Supérieure)**
  Paris, France   *2021*

  Worked under Laure Dumaz' supervision on a paper by Ben Arous and Guionnet.

Academic achievements

- **Best French Developer Contest 5th place finisher**
  Paris, France   *2023*
  - French national contest in Computer Science, with thousands of participants from every major IT company
  - awarded the 5000€ Genius prize as a high scoring student
- **International Olympiad in Informatics Bronze medalist**
  Tsukuba, Japan   *2018*
- **Dutch National Olympiad in Informatics winner**
  Utrecht, Netherlands   *2018*
- **Innopolis University Olympiad in Informatics finalist**
  Innopolis, Russia   *2018*
- **International Olympiad in Informatics participant**
  Tehran, Iran   *2017*

  As part of the top 4 High-School students in the Dutch National Olympiad in Informatics.

Outreach

- **Member of the France-IOI association**
  France   *2018 – Present*

  I am involved in organizing the Castor and Algoréa contests, in which more than 600 000 students from elementary school to high-school participate every year. I am also involved in selecting and training the best students that participate in the Informatics Olympiad.
- **Member of the Netherlands-IO association**
  Netherlands   *2018 – Present*

  I am involved with the computer science outreach campaign towards Dutch high-school girls and preparing the Dutch girls team for the European Girls Olympiad in Informatics.
- **Lecturer at the Moroccan Olympiad in Informatics training camp**
  Morocco   *2019*

  Gave algorithms lectures to Moroccan middle-school and high-school students.

Other interests

- Active Judo black belt and Tennis player.
- Practicing piano for the past 15 years, part of the chamber music club in the ENS. Founder of the Early Music section.
- Graduated from the Juvisy Music Conservatory in Music Theory, Piano and Ensemble Playing (2018).
- Minoring in Musicology at ENS.