

# Francesca Pieroni

## Curriculum Vitae

Sapienza Università di Roma  
Piazzale Aldo Moro, 5  
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### Personal data

Date of birth: October 27, 1998  
Place of birth: Rome (RM), Italy  
Nationality: Italian

### Current position

2022–present **PhD Student in Mathematics**, *Sapienza Università di Roma*, Rome  
Supervisor: Prof. Emanuele Caglioti

### Education

- 2020–2022 **Master Degree in Applied Mathematics**, *Sapienza Università di Roma*, Rome  
Grade: 110/110 cum laude  
Date: October 27, 2022  
Thesis title: Assegnamento ottimo aleatorio in dimensione 2 (Optimal random matching in dimension 2)  
Advisor: Prof. Emanuele Caglioti
- 2017–2020 **Bachelor Degree in Mathematics**, *Sapienza Università di Roma*, Rome  
Grade: 110/110 cum laude  
Date: September 22, 2020  
Thesis title: Modello di Kuramoto: il fenomeno della sincronizzazione (Kuramoto's model: the phenomenon of synchronization)  
Advisor: Prof. Emanuele Caglioti
- 2012–2017 **High School Diploma**, *Liceo Scientifico Statale Augusto Righi*, Rome  
Grade: 100/100

### Preprints

E. Caglioti, F. Pieroni. *Random matching in 2D with exponent 2 for densities defined on unbounded sets*. February 2023. arXiv: 2302.02602.

### Research Interests

- Optimal Transport, Random Matching

### Contributed Talks

- 16/11/2023 **Random Euclidean Matching in dimension 2**, *Optimal Transport Theory and Hydrodynamics*, Będlewo (Poland)

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## Schools and Conferences

- 12/11/2023-18/11/2023 **Oberwolfach Graduate Seminar: Optimal Transport Theory and Hydrodynamics (from Euler to Monge and vice versa)**, *Będlewo Conference Center* (Poland)
- 25/9/2023-29/9/2023 **Workshop: About Entropy in Large Classical Particle Systems**, *Mathematical Institute, University of Oxford* (England)
- 27/3/2023-31/3/2023 **School: Scaling limits and generalized hydrodynamics**, *Gran Sasso Science Institute, L'Aquila* (Italy)

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## Experience

- 2023 Classroom Tutor, Department of Mathematics "Guido Castelnuovo", *Sapienza Università di Roma*, Course: Geometria I (Geometry I), Channel II, 40 hours
- 2022 Collaboration grant at the Library of Department of Mathematics "Guido Castelnuovo", *Sapienza Università di Roma*, 150 hours

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## Other activities

- 2022 Participation to "Percorso di Eccellenza (Course of Excellence)" within the Master Degree, *Sapienza Università di Roma*
- 2019–2020 Participation to "Percorso di Eccellenza (Course of Excellence)" within the Bachelor Degree, *Sapienza Università di Roma*

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## Languages

- Italian *mother tongue*
- English *B2*

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## Computer skills

LaTeX, C++, Matlab, Wolfram Mathematica

November 27, 2023