

# Curriculum Vitae

## Laetitia Girdali

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Born the December 2nd 1984, french, 3 children

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INRIA Sophia-Antipolis Méditerranée

Team/équipe [CALISTO](#)

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### Current position

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From 1/10/2015 **Permanent Researcher**, INRIA Université Côte d'Azur, team [Calisto](#)

Sept. 2024 Habilitation à Diriger des Recherches (HDR)

### Research interest

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My research focuses on the modeling, control, and optimization for fluid-structure interaction problems, with an emphasis on collective dynamics and machine learning-based control methods.

### Research production

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- Over 18 papers in peer-reviewed journals, - 4 reviewed international conferences, - 3 book chapters,
- Numerous invited talks in international conferences and workshops.

### Academic position

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- 2014-2015 - “**Jacques Hadamard**” **postdoctoral research fellowship** at Mathematics laboratory (UMA) of École nationale supérieure des techniques avancées (ENSTA–Paristech), France
- 2013-2014 - **Postdoctoral researcher** at UMPA, École normale supérieure de Lyon, France
- 2010-2013 - **Teaching assistant** at École polytechnique, Palaiseau, France

### Education

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- 2024 - **Habilitation à Diriger des Recherches (HDR)**, Université Côte d'Azur
- 2010-2013 - **Ph.D.**, *Mathematical methods for swimming at low Reynolds number*, CMAP, École Polytechnique, Palaiseau, France
- 2009-2010 - **Master's Degree**, Applied Mathematics, École Polytechnique, Paris, France
- 2008-2009 - **Agrégation Externe de Mathématiques**, rank 91<sup>th</sup>, prepared at École Normale Supérieure de Lyon, France

### Research Visits

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- **Research Institute for Mathematical Sciences (RIMS)**, Kyoto University, October 2019, contact: [Kenta Ishimoto](#)
- **International School for Advanced Studies (SISSA)**, Italie, décembre 2012, décembre 2013, july 2014 and july 2015 contact: [Antonio DeSimone](#)

## Responsibilities

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- 2025 - Organizer of the summer school [Population Balance: From Fundamental to Applied Science](#), Grasse
- 2024 - Organizer of the workshop "Numerical analysis, control and optimization for physics", INRIA Université Côte d'Azur
- 2021– - Organizer of a thematic research school [FOX 2021](#)
- 2022– - Member of postdoctoral committee INRIA Sophia-Antipolis (Comité Nice)
- 2017-2022 - Member of doctoral committee INRIA Sophia-Antipolis (CSD)
- 2017-2021 - Member of committee of the center INRIA Sophia-Antipolis
- 2016-2020 - Member of the "Agrégation de mathématiques externe" committee

## Research projects

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- 2022– - Principal investigator of the project ANR JCJC NEMO (250k€)
- 2022– - Member of ANR Project Netflex
- 2017-2019 - Principal investigator of the project Défi Infini COMM CNRS (40k€)
- 2017-2020 - Member of ANR Project Maximic

## Research expertise

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- 2024 - Examiner of the PhD thesis of Jessie Levillain, École Polytechnique
- 2023 - Examiner of the PhD thesis of Xie Xiao, University of Nantes
- 2021 - Examiner of the PhD thesis of Maxime Etiévant, University of Besançon
- 2019 - Examiner of the PhD thesis of Fatima Tani, University of Montpellier
- 2019-2021 - Reviewer for the German Research Foundation (DFG)
- Peer reviewer for journals in applied mathematics, control and physics, including IEEE TAC, SIAM SICON, Phys. Rev. E, Journal of Optimization Theory and Applications, and others

## Supervision

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### Postdoc

- 2024– - Co-supervision of the post-doctorat of Chiara Calascibetta (0.5 %)
- 2018-2019 - Co-supervision of the post-doctorat of Walid Djema (0.5 %)

### PhD

- 2023– - Co-supervision of the PhD thesis of Luca Palazzolo (0.5%)
- 2022– - Co-supervision of the PhD thesis of Celine Van Landeghem (0.5%)
- 2021-2024 - Co-supervision of the ph.D thesis of Zakarya El-Khiyati (0.5 %)
- 2018-2021 - Co-supervision of the ph.D thesis of Luca Berti (0.5 %)
- 2017-2020 - Co-supervision of the ph.D thesis of Clement Moreau (0.33 %)
- 2017-2020 - Co-supervision of the ph.D thesis of Yacine El-Alaoui-Faris (0.33 %)

### Master

- 2025 - Co-supervision of the Master thesis of John Osorio (0.5%)
- 2023 - Co-supervision of the Master thesis of Lucas Palazzolo (0.5%)
- 2022 - Co-supervision of the Master thesis of Hao Liu (0.5%)
- 2022 - Co-supervision of the Master thesis of Celine Van Landeghem (0.33%)
- 2021 - Co-supervision of the Master thesis of Zakarya El-Khiyati (0.5%)
- 2021 - Co-supervision of the Internship of Raphael Chesneaux (Mines-Paristech) (0.5%)
- 2018 - Co-supervision of the Master thesis of Luca Berti (0.5%)
- 2017 - Co-supervision of the Master thesis of Clement Moreau (0.33 %)

## Teaching

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- 2016–2024 - **Teaching assistant in “Classe préparatoire aux grandes écoles”** (MPSI, MP\*), Centre International de Valbonne
- 2018–2021 - Course on Applied Mathematics, Master 2, **Master Cell Physics**, University of Strasbourg
- 2016–2017 - Course on Numerical Analysis, 1st year, **Polytech Nice Sophia**
- 2010–2013 - **Teaching assistant at École Polytechnique**  
– Lectures and exercises in Mathematical Analysis, numerical projects, practicals on Scilab and Freefem++
- 2008–2010 - Teaching in CPGE (MPSI, MP\*, PCSI, PC\*), Lycée Saint-Louis and Lycée Lakanal

## Miscellaneous

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- Prize *My innovation* from SATT Sud-Est (2019), Women’s scientific vocation (2002)