

# Domenico Giaquinto

## Curriculum Vitæ

✉ [domenico.giaquinto@cmcc.it](mailto:domenico.giaquinto@cmcc.it)  
ORCID: 0009-0005-1845-1509



## Work Experiences

2024–present **Post-Doctoral Associate**

*Euro-Mediterranean Center on Climate Change*, Bologna, Italy.  
Climate Variability and Prediction division.

## Education and training

2020–2024 **PhD in Modeling and Engineering Risk and Complexity**

*Scuola Superiore Meridionale*, Naples, Italy.

Visiting researcher at the *Potsdam Institute for Climate Impact Research (PIK)*, Potsdam, Germany.

Thesis in complex systems with application to climate science: "*Investigating climate compound events via complex climate networks*", supervised by Prof. Jürgen Kurths and Prof. Warner Marzocchi.

2021 **Authorization to practice as a Civil and Environmental Engineer**

*Università degli Studi di Napoli Federico II*, Naples, Italy.

2020 **Erasmus+**

*Instituto de la Grasa*, Sevilla, Spain.

Research experience on the production of biodegradable plastics.

2017–2020 **Master degree in Environmental Engineering**

*Università degli studi di Napoli Federico II*, Naples, Italy.

Thesis in Sanitary and Environmental Engineering and Mathematical Modeling: "*Biological production of high value biochemicals by mixed microbial cultures: a mathematical model*", supervised by Prof. Luigi Frunzo and Prof. Giovanni Esposito.

Grade: 110/110 *cum laude*.

2014–2017 **Bachelor Degree in Environmental Engineering**

*Università degli studi di Napoli Federico II*, Naples, Italy.

Thesis in Urban and Regional Planning: "*Atlas of small municipalities in Campania: analysis and territorial rebalancing strategies*", supervised by Prof. Marialuce Stanganelli.

Grade: 110/110 cum laude.

2009–2014 **Classical High School**

*Liceo Classico Pietro Giannone, Caserta, Italy.*

Grade: 100/100.

---

## Conferences and seminars

- 2024 **Speaker at the conference *EGU General Assembly***  
*European Geoscience Union, Vienna, Austria.*
- 2023 **Speaker at the conference *ccs/italy 2023***  
*Italian Chapter of the Complex Systems Society, Naples, Italy.*
- 2023 **Speaker at the conference *XLIII Dynamics Days Europe***  
*Scuola Superiore Meridionale, Naples, Italy.*
- 2023 **Conference *Nonlinear data analysis and modeling: advances, applications, perspectives***  
*Potsdam Institute for Climate Impact Research, Potsdam, Germany.*
- 2022 **PhD school *Training School on Statistical Modeling of Compound Events***  
*Lake Como School of Advanced Studies, Como, Italy.*
- 2022 **PhD school *Deciphering with Chaos: Modeling and understanding complex phenomena with Chaos Theory***  
*Bad Honnef Physics School, Bad Honnef, Germany.*
- 2021 **Conference *Natural-hazard Symposium for the Indian Himalayas 2021***  
*IIT Roorkee and University of Potsdam, online.*
- 2021 **PhD school *Spring School on Data-driven Model Learning of Dynamic Systems***  
*Ecole Centrale de Lyon, Ecully, France.*
- 2021 **Conference *Predicting Pandemic Emergence***  
*National Science Foundation, online.*
- 2020 **Training Course *ClimAlt***  
*A Sud Ecologia e Cooperazione, online.*

---

## Publications

- 2025 Giaquinto, D., Di Capua, G., Marzocchi, W., and Kurths, J.: *Spatio-temporal evolution of compound hot and dry extremes synchronizations in Europe*, accepted for publication by Climate Dynamics.
- 2024 Giaquinto, D., Tian, Y., Di Capua, G., Claassen, J., Ali, J., Li, H., and De Michele, C.: *Historical changes in the Causal Effect Networks of compound hot and dry extremes in central Europe*, Commun Earth Environ 5, 764, <https://doi.org/10.1038/s43247-024-01934-2>, 2024

2023 Giaquinto, D., Marzocchi, W., and Kurths, J.: *Exploring meteorological droughts' spatial patterns across Europe through complex network theory*, Nonlin. Processes Geophys., 30, 167–181, <https://doi.org/10.5194/npg-30-167-2023>, 2023.

## Languages

Italian Mother tongue

	Understanding		Speaking		Writing
	Listening	Reading	Interaction	Production	
English	C2	C2	C2	C2	C2
French	A2	A2	A2	A2	A2
Spanish	B2	B1	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user.

## Computer skills

- Proficient user in Outlook e Office (Word, Excel, Access, Power Point) programs
- Proficient user in  $\text{\LaTeX}$
- Proficient user in AutoCAD
- Proficient user in MATLAB e Python
- Independent user in HPC
- Independent user in Geographic information system (GIS) programs
- *European Computer Driving Licence* certificate

## Communication and Organizational Skills

Ability to present complex themes and research projects to a diverse audience of specialists, developed through activities related to the PhD (international conferences and PhD schools).

Strong communication and collaboration skills in heterogeneous groups, with a focus on mediation, work structuring, decision-making process, rationalization, and practicality, acquired during international research activities (Scuola Superiore Meridionale, Istituto de La Grasa, PIK).

Excellent skills in organizing and conducting scientific research activities: work planning, handling unforeseen events, meeting deadlines, reliability, precision, and independence.

**Date**

10/02/2025