

# Sara Cucchiaro

Assistant Professor (RtD-b)

Italian Scientific Sector (SSD): AGRI-04/A – Agricultural hydraulics and Watershed Management

Italian Competitive Subject Area (GSD): 07/AGRI-04 – Agricultural, Forestry and Biosystems Engineering



## PERSONAL INFORMATION

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SCOPUS: 57203852098

Web of Science (WOS) Researcher ID: AAC-1294-2022

### Academic Affiliations:

University of Udine, Department of Agricultural, Food, Environmental and Animal Sciences (Di4A), Via delle Scienze, 206, 33100, Udine, Italy.

### Research Interests:

Watershed Management, Hydro-Geomorphology, Bio-engineering, Glaciology, Earth Surface Processes, Natural Hazards, Remote Sensing, GIS, Digital Terrain Analysis.

## WORK EXPERIENCE

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- 2024 – Present **Assistant Professor (RTD-b)**  
Department of Agricultural, Food, Environmental and Animal Sciences (Di4A), University of Udine, Italy
- 2023 –2024 **Fixed-term Assistant Professor (RTD-a)**  
Department of Agricultural, Food, Environmental and Animal Sciences (Di4A), University of Udine, Italy
- 2019 –2023 **Postdoctoral Research Associate**  
Department of Land, Environment, Agriculture and Forestry (TESAF), University of Padova, Italy  
Department of Agricultural, Food, Environmental and Animal Sciences (Di4A), University of Udine, Italy

## ACADEMIC EDUCATION

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- 2023 - 2034 **National Scientific professional Qualification in AGRI-04/A (Italy)**  
Italian Competitive Subject Area (GSD): 07/AGRI-04 - Agricultural, Forestry and Biosystems Engineering  
Italian Scientific Sector (SSD): AGRI-04/A - Agricultural hydraulics and Watershed Management
- 2023 - 2034 **National Scientific professional Qualification in GEOS-03/A (Italy)**  
Italian Competitive Subject Area (GSD): 04/GEOS-03 - Physical Geography, Geomorphology and Applied Geology  
Italian Scientific Sector (SSD): GEOS-03/A - Physical geography and geomorphology
- 2019 **PhD in Environmental Life Sciences** (XXXI cycle - inter-ateneo)  
University of Udine - Department of Agricultural, Food, Environmental and Animal Sciences (Italy)  
University of Trieste - Department of Life Sciences (Italy)
- 2016 **Professional Qualification Exam in Forestry and Environmental Sciences**  
University of Udine, Udine (Italy)
- 2014 **Degree in Science and Technologies for the Environment and the Land** (LM-75)  
University of Udine, Udine (Italy)
- 2012 **Bachelor in Science for the Environment and Nature** (L-32)  
University of Udine, Udine (Italy)

## STUDY ABROAD FELLOWSHIP

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- 2022 AIIA (Italian Association of Agricultural Engineering) Fellowship - Short-term scientific Mission at the University of A Coruña, AQUATERRA research group, Coruña (ES)
- 2019 Short-term scientific Mission at the University of Leeds, School of Geography, Leeds (UK)  
Project title: *Structure from Motion in Geosciences*
- 2017 COST (European Cooperation in Science and Technology) Action ES1306 "Connecting European connectivity research" Fellowship - Short-term scientific Mission at the University of Lleida, Fluvial Dynamic Research Group-RIUS. 2-31, Lleida (Spain).

## TEACHING ACTIVITIES

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### Teaching

- 2024 - Present Course of the “*Soil protection and land restoration in mountain watersheds*” (6 CFU). Bachelor course of Science for Environment and Nature (L-32). University of Udine, Italy.  
**Course time:** 48 h, (a.y. 2024/2025)
- 2023 Course of the “*Geological risk*” (6 CFU). Degree course of Analysis and Management of the Environmental (LM-75). University of Udine, Italy.  
**Course time:** 6 h, (a.y. 2023/2024)
- Course of the “*Hydrology*” (6 CFU). Bachelor course of Science for Environment and Nature (L-32), University of Udine, Italy.  
**Course time:** 6 h, (a.y. 2023/2024)
- Course of the “*Environmental Geology*” (6 CFU). Bachelor course of Science for Environment and Nature (L-32), University of Udine, Italy.  
**Course time:** 6 h, (a.y. 2023/2024)
- Course of the “*Torrent Control Works*” (6 CFU). Bachelor course of Agricultural Sciences (L-25) - Mountain Systems and Forestry curriculum. University of Udine, Italy.  
**Course time:** 18 h, (a.y. 2022/2023)
- 2022 “*Geomatics is cool. A brief introduction to GIS tools for environmental PhD researches*” (2 CFU), PhD Course of Environmental Life Sciences. Official course for PhD students. University of Udine and Trieste, Italy.  
**Course time:** 16 h (a.y. 2021/2022)
- 2022 – Present **Subject-matter expert in Hydrology and Watershed Management (Italian Scientific Disciplinary Sector: AGRI-04/A)**  
Department of Agricultural, Food, Environmental and Animal Sciences, University of Udine, Italy.

### Teaching Assistant

- 2017 – 2019 Course of “*Geomatics*” (8 CFU), Bachelor course of Science for Environment and Nature (L-32), University of Udine, Italy.
- 2023 – Present **Co-supervisor in PhD course**  
Environmental Life Sciences (XXXIX cycle), inter-ateneo between University of Trieste – Department of Life Sciences and University of Udine – Department of Agricultural, Food, Environmental and Animal Sciences.
- 2016 – Present **Supervisor and co-supervisor in Thesis**  
Bachelor course of Science for Environment and Nature (L-32), Bachelor course of Agricultural Sciences (L-25), Bachelor course of Civil and Environmental Engineering (L-7) and Degree course of Analysis and Management of the Environmental (LM-75).

## RESEARCH ACTIVITIES

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### Participation in research projects

- 2024 - 2026 Team member of the “*TORRENT - Best common practices for risk reduction in torrent watershed management*” - research project (Interreg VI-A Italy-Slovenia 2021-2027; <https://www.ita-slo.eu/it/torrent>), University of Udine, lead partner.
- 2024 - 2025 Co-Principal Investigator in the Young Researcher plan of the Italian PNRR project entitled “*iNEST - Interconnected Nord-Est Innovation Ecosystem*”, Spoke “*Ecosystem for Mountain innovation*”, <https://www.consorziointest.it/>, University of Udine. Young Researcher project entitled: *Design and development of an open-source GIS plugin to support HYDROlogical and watershed management*

*PLANning in mountain basins (GIS4HydroPlan).*

2023 - 2026 Fixed-term Assistant Professor of the Italian PNRR project entitled "iNEST - Interconnected Nord-Est Innovation Ecosystem", Spoke "Ecosystem for Mountain innovation", <https://www.consorziointest.it/>, University of Udine. Research project task entitled: *Development of innovative techniques to monitor and analyse the instability phenomena in mountain basins and define an operational protocol for geohydrological risk prevention.*

2019 - 2023 Postdoctoral Research Associate of the WP1 in the "TerrACE - Terrace Archaeology and Culture in Europe" - research project (EU H2020 ERC-AdG, 2019–2023; <https://www.terrace.no>), University of Padova. Research project task of WP1: *map agricultural terraces using Remote Sensing techniques (ALS, UAV, TLS) and realise geomorphological analysis of agricultural terraces in Europe (Italy, Greece, UK, Norway, Belgium, France).*

2019 - 2022 Postdoctoral Research Associate of the "INADEF - INnovative eArly warning system for DEbris Flow events based on nowcasting and phenomenology" - research project (Interreg V-A Italy-Austria 2014-2020; <https://www.inadef.com/en/>), University of Udine, lead partner.

#### Member of conference committees

2024 - Present Member of the coordinating group of the National Conference of the Geosciences and Information Technologies (GIT) section – Italian Geological Society, Italy. Link: <https://gjitonline.org/>

2024 Giornate dell'Idrologia 2024, Udine, 24-26 June 2024, Italy. Link: <https://www.sii-ihs.it/2024/03/04/giornate-dellidrologia-2024/>

#### Conference Convener and Chairperson

2020 - 2024 Convener and Chairperson in different conferences (national and international): European Geosciences Union (EGU) - General Assembly, Vienna 2022, 2023 and 2024, Austria; Geosciences and Information Technologies (GIT) - Conference 2021, 2023 and 2024, Italy; 6th Word Landslide Forum, Florence 2023, Italy. American Geophysical Union (AGU) - Fall Meeting 2020, online.

#### Oral presentations at conferences

2016 - 2024 Speaker at several conferences and workshops (national and international), 2 of them as "invited talks". AIIA (Associazione Italiana di Ingegneria Agraria) Mid-Term Conference, Italy; European Geosciences Union (EGU) - General Assembly 2017 – 2022, Austria; Geosciences and Information Technologies (GIT) Conference 2017 – 2021, Italy; European Association of Archaeologists General Assembly 2021, online; Italian Society of Agricultural Engineering (AIIA) workshop 2020, online; Conference of COST Action ES1306 Connecteur Final Meeting 2018, Italy.

## PUBLICATIONS

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#### Publications Indexes

Author of 36 scientific publications: 27 articles in peer-reviewed journals (two article in ISSN-ISBN journal), 1 paper review, 4 conference papers, 3 book chapters and one note. Bibliometric indices (database accessed on 8 January 2025): [Google Scholar](#) (H-index 15, Citations 739) | [SCOPUS](#) (H-index 13, Citations 568) | [WOS](#) (H-index 11, Citations 447).

#### Publications Summary

The full list of publications can be found at the following link: <https://air.uniud.it/cris/rp/rp04895>

## SERVICE ACTIVITY

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#### Academy Membership & Scientific Societies

2024 - Present Member of the Italian Agricultural Engineering Association (AIIA).

Member of the Italian Association for Nature Engineering (AIPIN).

- 2023 - Present Member of the Italian Glaciological Committee.
- 2022- Present Science Officer of Subdivision SSS10: *Metric, Informatics, Statistics and Models in Soils* - Division on Soil System Sciences - European Geosciences Union.

### Editor (journals)

- 2022- Present Guest Editor in the Special Issue “4D (Multi-Temporal) Remote Sensing: Opportunities, Challenges, and Issues for Environmental Monitoring over Time” of *Remote Sensing*. Special Issue, 2022-2025. [https://www.mdpi.com/journal/remotesensing/special\\_issues/E5WQ7991UE](https://www.mdpi.com/journal/remotesensing/special_issues/E5WQ7991UE).

Guest Editor in the Special Issue “XV Convegno Nazionale della Sezione GIT - Ripatransone 2021”, *Rendiconti Online (ROL) della Società Geologica Italiana*, Vol. 58, ISSN 2035-8008 - November 2022. Special Issue edited by Alessandro Casasso, Sara Cucchiario, Simone Sterlacchini And Giordano Teza.

### Reviewer (journals)

- 2019 - Present Nat. Hazards Earth Syst. Sci. (Copernicus); Land Degradation & Development (Wiley); Earth (MDPI); Frontiers in Environmental Science; Environmental Earth Sciences (Springer). Earth Surface Processes and Landforms (Wiley). Journal of Soils and Sediments (Springer), CATENA (ScienceDirect), Heliyon (Cell Press), Geomatics, Natural Hazards and Risk (Taylor and Francis Online homepage).

### Reviewer (projects)

- 2024 Member of the Evaluation Panel ST10 (Earth sciences) of the National Science Centre of Polonia, for the “PRELUDIUM 23” funding scheme: n. 11 project reviewed.
- 2022 - Present Reviewer for the National Science Centre of Polonia (NCN), Panel ST10 (Earth sciences), for the “OPUS-25” and “OPUS-22” funding schemes: n. 4 project reviewed.

## AWARDS

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- 2022 **Early Career Scientist Award**  
In the Italian Scientific Disciplinary Sector: AGR/08 - Agricultural Hydraulics and Watershed Management. Awarded by the Scientific Society AIIA – Italian Association of Agricultural Engineering. 21 September 2022, Palermo, Italy.

Udine, 08 January 2025

According to law 679/2016 of the Regulation of the European Parliament of 27<sup>th</sup> April 2016, I hereby express my consent to process and use my data provided in this CV.

Sara Cucchiario

