



Sofia Ortenzi

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Date of birth: 21/09/1996 Nationality: Italian

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WORK EXPERIENCE

University of Perugia

City: Perugia | Country: Italy

[01/05/2021 – 31/10/2021] Research Scholarship

Photointerpretation aimed at the delineation and characterization of Quaternary continental deposits using GIS tools.

University of Perugia

City: Perugia | Country: Italy

[01/11/2024 – 31/07/2025] Research Fellow

Scientific and technical support for the evaluation of ecological flow in hydraulic sections across the Umbria Region.

EDUCATION AND TRAINING

[01/03/2023 – 30/04/2023] Erasmus+ Mobility for Traineeship

National Institute of Hydrology and Water Management – NIHWM <https://www.unccd.int/resources/knowledge-sharing-system/national-institute-hydrology-andwater-management>

City: Bucharest | Country: Romania |

[01/11/2021 – 04/04/2025] PhD in Earth System and Global Changes

University of Perugia <https://www.fisgeo.unipg.it/fisgeo/index.php/it/phd/earthsystem-and-global-changes-new.html>

City: Perugia | Country: Italy | | Level in EQF: EQF level 8 | Thesis: Analysis of runoff processes in small hill basins: from laboratory to site scale

[01/09/2018 – 18/09/2020] Master's Degree in Geological Sciences and Technologies

University of Perugia <https://www.unipg.it/>

City: Perugia | Country: Italy | | Final grade: Cum Laude |

Level in EQF: EQF level 7 | Thesis: Calibration of the PR2/6 Probe for Different Sands Types: Implications for Slope Stability

[01/09/2015 – 21/09/2018] Bachelor's Degree in Geological Sciences

University of Perugia <https://www.unipg.it/>

City: Perugia | Country: Italy | | Final grade: Cum Laude |

Level in EQF: EQF level 6 | Thesis: Gas Emissions from the Southwestern Sector of the Tiber Basin.

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s): English

LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

CONFERENCES AND SEMINARS

[01/12/2021 – 03/12/2021] **Flowpath 2021** Naples, Italy

Poster Presentation

“Using Multi-Sensor Capacitance Probe for Soil Water Management: Results from Sandy Soils in Central Italy”

Sofia Ortenzi and Lucio Di Matteo

Link:

https://iris.cnr.it/retrieve/d705b471-d624-4d4e-881a-0e178bde294f/prod_483671doc_199551.pdf

[20/12/2021 – 21/12/2021] **XV Convegno Nazionale della Sezione della Società Geologica Italiana** Ripatransone (AP), Italy

Oral Presentation

“Evaluation of the uncertainty of soil water content estimates for efficient water management”

Sofia Ortenzi, Martina Mangoni, Daniela Valigi, Lucio Di Matteo

[03/05/2023 – 03/05/2023] **Gestión del recurso hídrico en áreas continentales y costeras: casos de estudio sobre la interacción cualicuantitativa del agua subterránea y superficial en Italia y Argentina**

Oral Presentation

“Rendimiento de los datos hidrológicos por satélite para su uso en zonas con escasez de datos: resultados en el sur de Umbría (Italia central) ”

Sofia Ortenzi

Link: <http://dx.doi.org/10.24215/25456377e018R>

[26/05/2023 – 26/05/2023] **Giornata di Studio in memoria di Paolo Tacconi “La dinamica fluviale. La conoscenza del fiume per la pianificazione e la salvaguardia del territorio”**

Perugia, Italy

Poster Presentation

“Un workflow per la valutazione delle soglie empiriche di generazione del runoff”

Sofia Ortenzi, Corrado Cencetti, Lucio Di Matteo

Link: <https://hdl.handle.net/11391/1559113>

[22/06/2023 – 24/06/2023] **XII Convegno Nazionale dei Giovani Ricercatori di Geologia Applicata** Urbino, Italy

Oral Presentation

“Performance of Rainfall and Soil Moisture Satellite Product on a small Catchment in Central Italy”

Sofia Ortenzi, Corrado Cencetti, Ivan Marchesini, Marco Stelluti, Lucio Di Matteo

[14/11/2023 – 17/11/2023] **6° World Landslide Forum** Florence, Italy

Oral Presentation

“Slope dynamic processes in a medium-low permeability catchment in Central Italy”

Sofia Ortenzi, Corrado Cencetti, Marco Stelluti, Ivan Marchesini, Lucio Di Matteo

Link: <https://hdl.handle.net/11391/1572815>

[24/06/2024 – 26/06/2024] **Giornate dell'Idrologia 2024** Udine, Italy

Oral Presentation

“Empirical runoff thresholds: results from catchments in Central Italy”

Sofia Ortenzi, Luca Ciabatta, Christian Massari, Ivan Marchesini, Marco Donnini, Corrado Cencetti, Marco Stelluti, Lucio Di Matteo

Link: <https://hdl.handle.net/11391/1591835>

[27/06/2024 – 29/06/2024] **VII Congress AIGAA 2024** Naples, Italy

Oral Presentation

“Definition of runoff generation thresholds integrating satellite data and in-situ measurements: results from Voinești Experimental Basin (Romania)”

Sofia Ortenzi, Florentina Iuliana Mincu, Gianina Neculau, Viorel Chendeș, Corrado Cencetti, Lucio Di Matteo

[08/09/2024 – 13/09/2024] **IAH 2024** Davos, Switzerland

Oral Presentation

“Empirical runoff generation threshold in a small catchment in Central Italy by integrating in-situ and satellite observations”

Sofia Ortenzi, Corrado Cencetti, Marco Stelluti, Lucio Di Matteo

Link: <https://hdl.handle.net/11391/1591834>

[17/09/2024 – 20/09/2024] **Euromediterranean Network of Experimental and Representative Basins (ERB 2024)** Mallorca, Spain

Poster Presentation

“The influence of soil moisture and evapotranspiration on runoff in small catchments”

Florentina Iuliana Mincu, Sofia Ortenzi, Lucio Di Matteo, Gianina Neculau, Viorel Chendeș, Cristina Florea

PUBLICATIONS

[2020] [Processes in the Unsaturated Zone by Reliable Soil Water Content Estimation:](#)

[Indications for Soil Water Management from a Sandy Soil Experimental Field in Central Italy](#)

Authors: Di Matteo, L., Spigarelli, A., Ortenzi, S. | **Journal Name:** Sustainability | **Volume, Issue and Pages:** 13(1), 277

[2022] [Estimating moisture content and hydraulic properties of unsaturated sandy soils of Tiber River \(Central Italy\): Integrating data from calibrated PR2/6 probe and hydraulic property estimator](#)

Authors: Ortenzi, S., Mangoni, M., Di Matteo, L. | **Journal Name:** Italian Journal of Groundwater | **Volume, Issue and Pages:** 11(1), 17-25

[2022] [Soil Loss Estimation Coupling a Modified USLE Model with a Runoff Correction Factor Based on Rainfall and Satellite Soil Moisture Data](#)

Authors: Todisco, F., Vergni, L., Ortenzi, S., Di Matteo, L. | **Journal Name:** Water | **Volume, Issue and Pages:** 14(13), 2081

[2023] [Performance of rainfall and soil moisture satellite products on a small catchment in Central Italy](#)

Authors: Ortenzi, S., Cencetti, C., Marchesini, I., Stelluti, M., Di Matteo, L. | **Journal Name:** Italian journal of engineering geology and environment | **Volume, Issue and Pages:** 99-111

[2024] [Definition of runoff thresholds integrating satellite data and in-situ measurements: results from Voinești Experimental Basin \(Romania\)](#)

Authors: Ortenzi, S., Mincu, F., Neculau, G., Chendeș, V., Cencetti, C., Di Matteo, L. | **Journal Name:** Italian journal of engineering geology and environment | **Volume, Issue and Pages:** 235-242

[2024] [Comparing Satellite Soil Moisture Products Using In Situ Observations Over an Instrumented Experimental Basin in Romania](#)

Authors: Ortenzi, S., Cencetti, C., Mincu, F. I., Neculau, G., Chendeș, V., Ciabatta, L., Massari, C., Di Matteo, L. | **Journal Name:** Remote Sensing | **Volume, Issue and Pages:** 16(17), 3283

[2025] [Leveraging SMAP-based soil moisture to identify runoff thresholds on flash flood-prone basins in the Mediterranean Region](#)

Authors: Ortenzi, S., Massari, C., Ciabatta, L., Cencetti, C., Dionigi, M., Marchesini, I., Stelluti, M., Di Matteo, L. | **Journal Name:** Journal of Hydrometeorology

PROJECTS

Hydro4c - Hydrological Controls on Carbonate mediated CO₂ Consumption

Role: Scientific and technical support for the experimental basins of Ussita and Reschio.

Link: <https://hydro4c-project.irpi.cnr.it/>

Piano Operativo Ambiente (POA) - Progetto ACQUACENTRO

Role: Scientific and technical support in the assessment of ecological flow for hydraulic sections in the Umbria region.

Link: <https://aubac.it/attivita/progetti-speciali>

CARG - Cartografia geologica e geotematica

Role: Photointerpretation aimed at the delineation and characterization of Quaternary continental deposits using GIS tools.

Link: <https://www.isprambiente.gov.it/it/progetti/cartella-progetti-in-corso/suolo-eterriorio-1/progetto-carg-cartografia-geologica-e-geotematica/index>

Date: Perugia, 08/07/2025

