

PERSONAL INFORMATION

Margherita Bufalini



EDUCATION AND TRAINING

December 2020- Today

Post-Doctoral researcher

“Valutazione delle pericolosità geomorfologiche nell'area urbana di Camerino in relazione agli obiettivi del Progetto ARCH (Horizon 2020)”

Settore scientifico-disciplinare: GEO/04 “Geografia fisica e geomorfologia”. Topics of research: geophysical surveys; definition of the local seismic response; GIS modelling (ArcGIS and QGIS)

Researched Scholarship at University of Camerino, Geology Division

January 2020 - December 2020

“ Modelli numerici idrologico ed erosione del suolo”

Topics of research: Hydrological modelling, soil erosion, GIS modelling (ArcGIS and QGIS) and Python (programming language).

November 2016-July 2020

PhD- University of Camerino, Geology Division

“METHODS AND MODELS FOR DIRECT AND INDIRECT EVALUATION OF HYDROLOGICAL PROCESSES AND SOIL EROSION. CASE STUDIES ON THE ADRIATIC SIDE OF THE CENTRAL APENNINES ” in collaboration with the Consorzio di Bonifica delle Marche, Macerata (MC).

Topics of research : Groundwater modelling and environmental simulation modelling, landslides evolution, fluvial geomorphology, agriculture, soil erosion and GIS modelling.

April 2016

December 2013

Master Degree (cum laude) in Geoenvironmental Resources and Risks

Title: “Natural and Human factors influencing the hydrologic-hydraulic modeling of a stream catchment: the case study of Ete Morto River (central Marche, Italy)”.

Topics: Hydrogeological Hazard, Groundwater Resources, GIS and Geomorphology

December 2013

Bachelor Degree in Geological, Natural and Environmental Sciences

“Approccio metodologico geo-ambientale e geo-botanico per il recupero di un'area interessata da attività estrattiva”.

Topics: Environmental Geology and Geo-botany

Publications, Presentations, Projects, Conferences, Seminars, Honours and awards, Memberships, References, Citations, Courses and Certifications

- **September 2021** Participation as Speaker at the Online Conference “90° Congresso della Società Geologica Italiana dal titolo “Geology without borders”.
- **August 2021** Publication of the article in Geosciences(11,8), entitled “Calculation of Potential Evapotranspiration and Calibration of the Hargreaves Equation Using Geostatistical Methods over the Last 10 Years in Central Italy”.
- **June 2021** Publication of the article in Land (10,6), entitled: “ Landslide Hazard Assessment in a Monoclinial Setting (Central Italy): Numerical vs. Geomorphological Approach”.
- **May 2021** Publication of the article in Land (10,5), entitled: “ Geomorphological Hazard in Active Tectonics Area: Study

Cases from Sibillini Mountains Thrust System (Central Apennines)”.

- **March 2021** Publication of the article in the Journal of Maps, entitled: “ From traditional to modern “full coverage” geomorphological mapping: a study case in the Chienti river basin (Marche region, central Italy)”.
- **March 2021** Publication of the article in Science of The Total Environment (780), entitled “ New pedotransfer approaches to predict soil bulk density using WoSIS soil data and environmental covariates in Mediterranean agro-ecosystems”.
- **February 2021** Partecipazione alla Giornata internazionale delle Donne e delle Ragazze nella Scienza
- **February 2021** Participation as Speaker at the Online Conference “ 4° Convegno dei Geologi marini Italiani- La Geologia marina in Italia”.
- **December 2020** Participation as Speaker at the Online Conference ““The Role of Geomorphology in Modern Society” organized by the Hellenic Committee for Geomorphology & Environment of the Geological Society of Greece.
- **April 2020** Publication of the article in the Geomorphology (Vol.363), entitled: “ Small catchments evolution on clayey hilly landscapes in Central Apennines and northern Sicily (Italy) since the Late Pleistocene.
- **February 2020** Nomina cultore della materia in Geomorfologia, Geologia Applicata e Idrogeologia (GEO/04)
- **September 2019** Participation as Speaker at the REGIONAL CONFERENCE of GEOMORPHOLOGY 2019 (Athens, Greece)
- **August 2019** Participation at the 1st International Statistical analysis of spatial Data in Agro-Environmental research Summer School (Como)
- **July 2019** Participation and organization of the 5th Biohydrology Conference (held to 24-27 July 2019) as a member of the helping staff and of the welcoming committee.
- **July 2019** Publication of the article in the AIMS Geosciences, 5(3):568-590; entitled: “The significance of recent and short pluviometric time series for the assessment of flood hazard in the context of climate change: examples from some sample basins of the Adriatic Central Italy”
- **November 2018** Publication of the article in the "Italian Geological Society Online Report" - Volume 46 (9-15); entitled "THE SEISMIC SEQUENCE OF CENTRAL ITALY ON AUGUST 24 AND FOLLOWING: CONTRIBUTIONS TO KNOWLEDGE AND THE DATABASE OF SURFACE EFFECTS".
- **September 2018** Participation as Speaker at the REMTECH-CLIMETECH (Ferrara)
- **September 2018** Participation and organization of the VI Convegno Nazionale AIGeo “VIVERE SULLE FAGLIE Storia dell’Uomo e del Paesaggio” (Camerino).
- **July 2018** Participation in the Training Course: “GIS Open Source Avanzato (QGIS)”
- **July 2018** Winner of the degree award: Hydrogeological Risk of Mountain Areas.
- **June 2018** Participation in the Geology Field Camp organized by the University of Camerino in collaboration with George Mason University (Excursions, Lessons and Exams).
- **May-June 2018** Conseguimento dei 24 CFU nelle discipline antropo-psico-pedagogiche e nelle metodologie e tecnologie didattiche.
- **January 2018** Publication of the article in the Geologia Ambientale- Supplement n. 1/2018; entitled “GEOMORPHOLOGICAL EFFECTS AND HYDROGEOLOGICAL VARIATIONS INDUCED BY EARTHQUAKES: STUDY CASES FROM 2016-2017 CENTRAL ITALY EPICENTRAL AREA”.
- **November 2017** Participation in the Training Course: “Programmare i GIS con Python. Creare script e plugin in QGIS”
- **September 2017** Participation of the V Stage per Giovani Geomorfologi (AIGeo) “I paesaggi legati ai terremoti: effetti geomorfologici di superficie”
- **September 2017-Today** Participation in professional refresher courses organized by Ordine dei Geologi, ai sensi Del D.P.R. 7 agosto 20/12 n°137.
- **June 2017** Qualification for the Profession of Geologist at the University of Camerino.
- **November 2016-Today** Assistance to lessons, excursions and exercises in Hydrogeology courses (bachelor’s degree in Geological Sciences) and Groundwater Resources and Risks (master’s degree in “Geoenvironmental Resources and Risks), at the University of Camerino and held by Prof. Marco Materazzi.
- **Member of the AIGEO** (Italian Association of Physical Geography and Geomorphology).

WORK EXPERIENCE

- August 2019-Today **HEC-HMS version 4.4 Beta Testing**
 Component of the “International tester group” for the BETA VERSION of HEC-HMS (4.4)
- October-December 2019 **Expert Professor within Progetto PON (modulo 06) “Catalogazione Georeferenziata San Severino”**
 I.T.I.S. “E. Divini”, San Severino Marche
- October 2016 **Collaboration with the Consorzio di Bonifica delle Marche**
 Hydrological-Hydraulic Modeling of the main rivers of the Marche Region.
 Software used: : ArcGIS, HEC-GeoHMS, HEC-GeoRAS, HEC-HMS and HEC-RAS.
- May-July 2015 **Part-Time Activities**
 Departments of Mathematics, Physics and Informatics, via Madonna delle Carceri, UNICAM

PERSONAL SKILLS

Mother tongue(s) Italian

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

- Computer skills
- Proficient command of Microsoft Office™.
 - Proficient in ArcGIS software (version 10.2-10.5).
 - Proficient in Hec-RAS, Hec-HMS and their extension (GeoRAS and GeoHMS).
 - Good knowledge and use of QGIS Software.
 - Good knowledge and programming skills with Python.
 - Good knowledge and use of CORELDRAW Software.
 - Fair knowledge and use of AutoCAD Software.
 - Good ability to browse the Internet as regards research and the selection of scientific information.

Other skills Amateur Chef.
 Photography: passionate photographer during free time.

Driving licence B