

PERSONAL INFORMATION

Guido Rianna

POSITION

SCIENTIST

Work Experience

01/04/2012–up to now

Fondazione CMCC Centro Euromediterraneo sui Cambiamenti Climatici. He leads the research unit "ADAPTATION ENGINEERING" within the Regional Models and geo-hydrological Impacts Division and Institute for Climate Resilience. He has been involved in several European and national projects; among the others:

INTERREG CENTRAL EUROPE PROLINE [2016-2019 PROLINE-CE Efficient Practices of Land Use Management Integrating Water Resources Protection and Non-structural Flood Mitigation Experiences]. He was leader of WP T3 "Synopsis: Vision and guidance" which developed the GOWARE Decision Support Tool "Transnational EC guidance towards optimal use of the drinking water resource. (<http://proline-ce.fgg.uni-lj.si/goware/goware-webtool/>). **INTERREG CENTRAL EUROPE TEACHER-CE** [2020-2022 joint Efforts to increase water management Adaptation to climate CHanges in central EuRoPe] acting as scientific coordinator for the CMCC Foundation and co-leader of WP T2. **Copernicus Climate Change Service Sectoral Information System "Disaster Risk Reduction"** (2019-2021). He acted as Service Manager. **Copernicus Climate Change Service Demo Case "Soil erosion"** (2019-2020). He acted as Service Manager. **ACQUAOUNT PRIMA PROJECT (2021-2014). Adapting to Climate change by QUantifying optimal Allocation of water resOURces and socio-ecoNomic inTerlinkages.** He acts as Leader for Work Package "Decision Support Tool".- **SCIENTIFIC COORDINATOR Fondazione IFAB (International Foundation Big Data and Artificial Intelligence for Human Development ; <https://www.ifabfoundation.org/it/>).** Horizon Europe "The HuT" **The Human-Tech Nexus - Building a Safe Haven to cope with Climate Extremes** . He acts as Deputy Coordinator, Demonstration Leader for Monti Lattari and Work Package Leader for "Science and Technology". **Life Integrated Project "ClimaxPo" (starting in February 2023).** He acts as Leader for Work Package on Water Infrastructure. **HaMMon Project (National Project).** He acts as Work Package Leader for "Services on seasonal forecasts and weather generator"

Co-leader of Factsheet on Built Environment in European Climate Risk Assessment (EUCRA). He obtained National Scientific Habilitation as Assistant Professor for ICAR/07 08/B1 scientific sector (Geotechnical engineering). Panel Expert for EU-Level Technical Guidance on adapting buildings to climate change. Invited speaker for several international conferences (Multiscale analysis of slope under climate change Barcelona 2019 <http://congress.cimne.com/musloc2019/frontal/default.asp>, ISOC2019 <https://isoc2019.com/>, JTC-1 JTC1 Workshop. Advances in Landslide Understanding <https://issmge.org/events/jtc1-workshop2017>). Adjunct Professor for the course "Climate Change and related impacts" at the Università della Campania "L. Vanvitelli"

01/11/2011–31/03/2012

Researcher

Università di Napoli "Federico II", Napoli

01/05/2011–30/06/2011

Researcher

Università di Napoli "Federico II", Napoli

15/05/2007–01/11/2007

Researcher

Centro Euromediterraneo per i Cambiamenti Climatici
via Maiorise, 81043 Capua (CE) (Italy)

EDUCATION

01/11/2007–31/10/2010

PhD

Università di Napoli "Federico II"

EQF level 6

Piazzale Tecchio, 80, 80125 Napoli (Italy)

15/09/1999–21/03/2007

Degree Civil Engineering for Sustainable Development

5A

Università di Napoli "Federico II" Piazzale Tecchio, 80, 80125 Napoli (Italy)

110/110 cum laude Thesis on "Modeling of infiltration processes in partially saturated soils following storm events" **Supervisor: Prof.Ing.Luca Pagano**

Additional information

Peer reviewed articles

SCOPUS: H-index 18; among the latest published articles:

- Rianna G., Reder A., Sousa M.L., Dimova S.2023, *Climate Services*, Volume 30, April 2023, 100391, DOI: <https://doi.org/10.1016/j.cliser.2023.100391>
- Rianna, G., Reder, A. & Pagano, L. From empirically to physically based early warning predictions of rainfall-induced landslides in silty volcanic soils: the Lattari Mountains case study. *Bull Eng Geol Environ* 82, 223 (2023). <https://doi.org/10.1007/s10064-023-03228-x>
- R. Padulano, M. Santini, M. Mancini, M. Stojiljkovic, G. Rianna, Monthly to seasonal rainfall erosivity over Italy: Current assessment by empirical model and future projections by EURO-CORDEX ensemble, *CATENA*, Volume 223, 2023, 106943, ISSN 0341-8162, <https://doi.org/10.1016/j.catena.2023.106943>.
- E. Bastidas-Arteaga, G. Rianna, H. Gervasio, M. Nogal, Multi-region lifetime assessment of reinforced concrete structures subjected to carbonation and climate change, *Structures*, Volume 45, 2022, Pages 886-899, ISSN 2352-0124, <https://doi.org/10.1016/j.istruc.2022.09.061>.
- Rianna G., Comegna L., Picarelli L., Urciuoli G., Reder A. A simplified procedure to assess the effects of climate change on landslide hazard in a small area of the Southern Apennines, in Italy. Accepted for *Natural Hazards* DOI :10.1007/s11069-022-05656-6.
- Padulano, R.; Costabile, P.; Rianna, G.; Costanzo, C.; Mercogliano, P.; Del Giudice, G. Comparing Different Modelling Strategies for the Estimation of Climate Change Effects on Urban Pluvial Flooding. *Environ. Sci. Proc.* 2022, 21, 5. <https://doi.org/10.3390/environsciproc202202100>
- Zieher, T., Gallotti, G., Rianna, G. et al. Exploring the effects of climate change on the water balance of a continuously moving deep-seated landslide. *Nat Hazards* (2022). <https://doi.org/10.1007/s11069-022-05558-7>
- A. Reder, M. Raffa, R. Padulano, G. Rianna, P. Mercogliano, Characterizing extreme values of precipitation at very high resolution: An experiment over twenty European cities, *Weather and Climate Extremes*, Volume 35, 2022, 100407, ISSN 2212-0947, <https://doi.org/10.1016/j.wace.2022.100407>.
- Padulano R., Rianna G., Costabile, P., Costanzo, C., Del Giudice, G., Mercogliano P. Propagation of variability in climate projections within urban flood modelling: A multi-purpose impact analysis 2021, *Journal of Hydrology*, 602, 126756, DOI: <https://doi.org/10.1016/j.jhydrol.2021.126756>,
- Padulano R, Rianna G., Santini M., Datasets and approaches for the estimation of rainfall erosivity over Italy: A comprehensive comparison study and a new method, *Journal of Hydrology: Regional Studies*, Volume 34, 2021, 100788, ISSN 2214-5818, <https://doi.org/10.1016/j.ejrh.2021.100788>.
- Reder, A.; Rianna, G. Exploring ERA5 reanalysis potentialities for supporting landslide investigations: A test case from Campania Region (Southern Italy). *Landslides* 2021, DOI: 10.1007/s10346-020-01610-4
- Adinolfi M., Rianna G., Mercogliano P., Maiorano R.M.S., and Aversa S. Behaviour of energy piles under climate-change scenarios: a case study in Southern Italy *Environmental Geotechnics* <https://doi.org/10.1680/jenge.19.00093>

Napoli, 16 April 2024