

Marie Skłodowska Curie Individual Fellowship 2020

Expression of Interest for hosting Marie Curie Fellows

1. Supervisor (name and e-mail address)

Giovanna Grossi
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2. Department (name and address)

DICATAM - Dept. of Civil, Environmental, Architectural Engineering and Mathematics
Via Branze 43
25123 Brescia

3. Panel (choose one)

- Chemistry (CHEM)
- Social Sciences and Humanities (SOC)
- Economic Sciences (ECO)
- Information Science and Engineering (ENG)
- Environment and Geosciences (ENV)
- Life Sciences (LIF)
- Mathematics (MAT)
- Physics (PHY)

4. Description of your research activities (max 10 lines)*

My research activity is focused in the fields of Hydrology and Hydraulic Structures, besides mountain hydrology, climate change effects on the water cycle and the management of stormwater in drainage systems. She was the local coordinator of a national research project (PRIN 2006) aimed at flood forecasting with uncertainty estimate. She participated (2007) to the demonstrative phase of the international project MAP, focusing on flood forecasting potentials in mountain areas. In 2009-2010 she was the coordinator of a regional research project aimed at the analysis of sediment yield in mountain areas. She was member of the research unit at UNIBS involved in an FP7 research project named Kulturisk, aimed at the diffusion of a 'culture of risk' of river flood event. Since September 2017 she is local leader of an Horizon 2020 research project named Scishops and coordinator of a science shop (<https://www.watshop.it>) focusing on sustainable water resources management in a changing climate.

5. Key-words

Mountain hydrology, Climate change, Sustainable urban drainage, Flood forecasting, Uncertainty estimate

6. Short CV of the supervisor (max 5 lines)

She is Associate Professor in Hydraulic Structures at DICATAM since March 2015 (Assistant Professor 2001-2015). She was local coordinator of a national research project, coordinated regional and local research projects. Since 2010 she is member of the Italian Glaciological Committee. She is now local leader of an Horizon 2020 research and innovation project funded in one of the calls "Science with and for society". She is now teaching Hydraulics, Urban hydraulic structures and Climate change adaptation and mitigation.

7. List of 5 main publications of the supervisor

1. Balistrocchi, M., Grossi, G. (2020). Predicting the impact of climate change on urban drainage systems in northwestern Italy by a copula-based approach. JOURNAL OF HYDROLOGY. REGIONAL STUDIES, vol. 28, ISSN: 2214-5818, doi: 10.1016/j.ejrh.2020.100670
2. Grossi, G., Lendvai, A., Peretti, G., Ranzi, R. (2017) Snow precipitation measured by gauges: systematic error estimation and data series correction in the central Italian Alps, Water, 9(7),461.
3. Nguyen T. A., Grossi G., Ranzi R. (2015). Design Storm for Mixed Urban and Agricultural Drainage Systems in the Northern Delta in Vietnam. JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING, ISSN: 1943-4774, doi: 10.1061/(ASCE)IR.1943-4774.0000962, 04015051
4. Balistrocchi, M., G. Grossi, B. Bacchi (2013). Deriving a practical analytical-probabilistic method to size flood routing reservoirs, Advances in Water Resources, accepted for publication in Advances in Water Resources, September 2013.
5. Grossi, G., P. Caronna, R. Ranzi (2013). Hydrologic vulnerability to climate change of the Mandrone glacier (Adamello - Presanella group, Italian Alps), Advances in Water Resources, 55, 190-203, DOI:10.1016/j.advwatres.2012.11.014.

*Please consider that the preparation of a Marie Curie proposal requires some time. Fellow and supervisor have to agree on a project and training opportunities for the fellow.