

Name Francesco Laio

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SYNOPSIS

I am a water scientist with expertise in hydrology, water resources assessment, environmental modelling, and statistics. I hold a degree in Environmental Engineering (from Politecnico di Torino) and a Ph.D. in Water Engineering (from Politecnico di Milano); in 2014 I was appointed Full Professor in Hydrology. My scholarly activities are documented by more than 140 publications, including more than 100 papers in ISI peer-reviewed international journals, and a book published by Cambridge University Press. My papers have received nearly 3100 citations in total. An h-index of 31 indicates that my work is generally well regarded.. In the past few years I have served as the coordinator of 11 national and international research projects (including an ERC Consolidator Grant, see list below) for a total budget of 2.2 M€. The scholarly production resulting from this research is interdisciplinary, as evidenced by the diversity of the journals in which it has appeared. Technology transfer activities include a patent for measuring precipitation from images and participation in the activities of the spinoff WaterView.

ACADEMIC APPOINTMENTS

Research Associate, 1999-2000, Princeton University (USA)

Assistant Professor, 2004-2010, DIATI, Politecnico di Torino (Italy)

Associate Professor, 2011-present, DIATI, Politecnico di Torino (Italy)

Full Professor, 2014-present, DIATI, Politecnico di Torino (Italy)

TEACHING ACTIVITY

I have been teaching at the Politecnico di Torino (student evaluations available upon request) since 2004. His teaching portfolio includes courses in *Hydrology*, *Water Resources Management and Planning*, *Hydraulic Infrastructures*, *Hydrology and climatology*, *Land and environment protection*.

ADVISING ACTIVITY

Ph.D. students advised or co-advised: Stefania Tamea (2004/2006), Alberto Viglione (2004/2006, winner of Best Dissertation Award, AMGA foundation), Paola Allamano (2005/2007), Lorenzo Alfieri (2005/2007, winner of Best Dissertation Award, SIMA foundation), Fabio Borgogno (2006/2008), Daniele Ganora (2007/2009), Elisa Bartolini (2008/2010), Stefania Borra (2009/2011), Stefania Tron (2011/2013), Anna Botto (2012/2014), Mohammed Azmat (2012/2014), Alberto Croci (2014/2016), Roberta Paranunzio (2014-2016), Marta Tuninetti (2015-2017), Irene Soligno (2016-present).

I also served as the advisor of the following post-doc researchers: Daniele Ganora (2010-2015); Stefania Scarsoglio (2011); Stefania Tamea (2013-2015); Paolo Cavagnero (2015); Tiziano Distefano (2016-present); Ignazio Giuntoli (2017-present)

MEMBERSHIP OF EDITORIAL BOARDS

Water Resources Research (IF 2.957), edited by Wiley for the American Geophysical Union, 2008-present.
Hydrology and Earth System Sciences (IF 3.148), edited by Copernicus for the European Geophysical Union, 2007-2015.

Advances in Water Resources (IF 2.449), edited by the Elsevier Editorial System, 2010-2016.

Guest editor for the special issue "Advances in Statistical Hydrology" for Hydrology and Earth System Sciences, 2010.

REFEREE ACTIVITY

Referee and reviewer for various scientific journals including: *Water Resources Research*, *Journal of Hydrology*, *Nonlinear Processes in Geophysics*, *Physics and Chemistry of the Earth*, *Journal of Hydrological Sciences*, *Advances in Water Resources*, *Hydrology and Earth System Sciences*, *Geophysical Research Letters*, *Physica A*, *Proceedings of the Royal Society of Sciences Journal*, *Physical Review E*, *Proceedings of the National Academy of Science (PNAS)*

Reviewer for national and international projects funded by MIUR and the US National Science Foundation, The Swiss National Science Foundation, The Dutch Science Foundation.

OTHER SERVICE TO THE SCIENCE COMMUNITY

Chair of the Subdivision on Estuaries, Wetlands and Eco-Hydrology of the European Geophysical Union in the years 2007/2011.

Member of the "Statistics in Hydrology Working Group", and of the organizing committee for the pertinent annual meeting (since 2008).

Convener for the "How to write (and publish) a scientific paper in Hydrology" at each year's EGU general meeting (2008-2012).

SCIENTIFIC PROJECTS

A list of the main finalized projects is reported hereinafter. The total funded amount, including also smaller projects, is about 2.2 M€.

- Design floods estimation in Piedmont, with particular reference to catchments closed by dams, Funded by ENEL spa, Period 2006-2008, Project Value 144.000 €
- FLORA: Flood estimation in complex orographic areas for Risk mitigation in Alpine space, Funded by the EU (Interreg IV), Period 2010-2011, Project Value 150.000 €
- RISKMAT: Natural Risk management in mountain areas, Funded by EU (Interreg IV), Period 2010-2011, Project Value 150.000 €
- VIWAN, The global virtual water network – Environmental and Socio-economic implications, FIRB project funded by MIUR, Period 2014-2016, Project Value 244.000 € (total project value, including the other research units, 770000 €)
- CWASI, Coping with water scarcity in a globalized world, ERC Consolidator grant funded by the EU, Period 2015-2019, Project Value 1.222.000 €

TECHNOLOGY TRANSFER ACTIVITY

His research activities have brought to the development of regional-scale flood and rainfall frequency analysis tools that are currently used by ARPA Piemonte and Regione Calabria for their institutional activities. An experimental instrument for measuring the snow water equivalent is currently being tested by ENEL Produzione SPA for possible applications in water resources availability assessments. I am one of the inventors of a "Method for measuring a particle precipitation rate, and device thereof", patent application N. TO2015A000029. I collaborate with the spinoff WaterView (www.waterview.it) as the scientific advisor.

AWARDS

Torricelli Prize (5000 €) for the best young Italian scientist in Water Engineering, 2006. The prize was awarded by the Italian Water Engineers Association (GII), under the recommendations of an international selection committee. Recipient, in years 2007, 2008, 2009, and 2010, of the award for excellence in research granted by the Polytechnic of Turin. Excellence in reviewing award, *Advances in Water Resources*, 2013. *Water Resources Research* 2015 Editors' Choice Award for the paper "Drivers of the virtual water trade" (doi: 10.1002/2013WR014707)