

Short Curriculum vitae et studiorum  
**Ennio FERRARI**

**Current Occupation:** Associate Professor of Hydrology – University of Calabria (*Disciplinary scientific area: ICAR/02 Hydraulic and Maritime Constructions, and Hydrology*).

**Affiliation:** University of Calabria, Department of Computer Engineering, Modeling, Electronics and Systems, Ponte P. Bucci cubo 41/b, 87036 Rende (CS), ITALY.

**Born:** Cosenza (Italy), January 29, 1959.

**Marital status:** Married to Divina De Marco, with one son (Stefano).

**Education:** Degree “cum laude” in Civil Engineering for soil protection and territorial planning, University of Calabria (Italy), 1985.

**Email references:** ennio.ferrari@unical.it

**Academic Career:**

Associate professor of Hydrology, University of Calabria, 2001-

Assistant professor of Fluvial Hydraulics, University of Calabria, Department of Soil Protection, 1991-2001.

Two annual grants to National Research Council (CNR-IRPI, Cosenza) for researches on regional approaches to flood evaluation (1987, 1990).

**Brief Description of Scientific Activity**

Author of about 30 papers published on international peer-reviewed scientific journals, and of many contributions presented in international conferences published in the Conference proceedings (refer to: <https://scholar.google.com/citations?hl=it&user=w7usMggAAAAJ>).

Responsible for the “Extreme events” topic of the international research group AMHY/MED, within the project FRIEND (IHP-UNESCO): Organizer and editor of an International Workshops at the University of Istanbul (1999). Organizer of five International Workshops at the University of Calabria, Editor of the proceedings (2006-2014). Co-editor of a book (Global Change: Facing Risks and Threats to Water Resources. International Association of Hydrological Sciences, 2010).

Vice President of ICSW (surface water) for IAHS (2015-2019).

Participation to: the National Research Group for Defence against Hydrogeological Disasters of the CNR (1989-2003); PRIN projects.

Teacher of: River engineering; Statistics; Fluvial hydraulics; Hydrology (activities developed at the University of Calabria within MSc in Civil Engineering; MSc in Environmental Engineering; MSc in Geological Sciences).

Invited speaker at the International Workshop on Hydrological Extremes: “Modelling and Managing Low Flows, Droughts and Floods”, Federal Institute of Hydrology, Koblenz (Germany), 5-8 July, 2003; Organizer and chairman of the session “Extreme events: links between science and practice” at the IAHS 2017 World Scientific Assembly (Port Elizabeth, Sudafrica); Member of the scientific board of several international conferences.

Teacher at: International Doctorate on Astronomy and meteorology at the University of Barcelona (2006); European project EUROMED (2000); Taught Masters at the University of Calabria (MODECI, CARTHEMA, CIPPS, ESTIA, SIGIEC) and University of Cagliari (Hydraulic Risk).

Reviewer of: Advances in Geosciences; Applied Mathematics and Computation; Arabian Journal of Geosciences; Hydrological Science Journal; Hydrology Research; International Journal of Climatology; Iranian Journal of Science and Technology; Journal of Hydrology; Journal of Mountain Science; La Houille

Blanche; Le Journal de l'Eau et de l'Environnement; Monti & Boschi; Natural Hazards and Earth System Sciences; Stochastic Environmental Research and Risk Assessment; Theoretical and Applied Climatology; Turkish Journal of Agriculture and Forestry; Water.

Expertise: River hydraulics; Hydrology; Flood evaluation.

### Recent articles published on peer-reviewed scientific journals

Caloiero, T., Coscarelli, R., Ferrari, E. Assessment of seasonal and annual rainfall trend in Calabria (southern Italy) with the ITA method. *Journal of Hydroinformatics*, 2019 (<https://doi.org/10.2166/HYDRO.2019.138>).

Sirangelo, B., Caloiero, T., Coscarelli, R., Ferrari, E. A Stochastic Approach for the Analysis of Long Dry Spells with Different Threshold Values in Southern Italy. *Water* 11(10), 2026, 2019.

Blöschl, G. et al. Twenty-three unsolved problems in hydrology (UPH)—a community perspective. *Hydrological Sciences Journal* 64(10), 1141-1158, 2019.

Sirangelo, B., Caloiero, T., Coscarelli, R., Ferrari, E. A combined stochastic analysis of mean daily temperature and diurnal temperature range. *Theoretical and Applied Climatology* 135(3-4), 1349-1359, 2019.

Coschignano, G., Nicolaci, A., Ferrari, E., Cruscomagno, F., Iovino, F. Evaluation of hydrological and erosive effects at the basin scale in relation to the severity of forest fires. *iForest-Biogeosciences and Forestry* 12(5), 427, 2019.

Caloiero, T., Coscarelli, R., Ferrari, E. Application of the innovative trend analysis method for the trend analysis of rainfall anomalies in southern Italy. *Water Resources Management* 32(15), 4971-4983, 2018.

Ferrari, E., Coscarelli, R., Sirangelo, B. Correlation analysis of seasonal temperature and precipitation in a region of Southern Italy. *Geosciences* 8(5), 160, 2018.

Caloiero, T., Sirangelo, B., Coscarelli, R., Ferrari, E. Occurrence probabilities of wet and dry periods in southern Italy through the SPI evaluated on synthetic monthly precipitation series, *Water* 10(3), 336, 2018.

Caloiero, T., Coscarelli, R., Ferrari, E. Analysis of monthly rainfall trend in Calabria (Southern Italy) through the application of statistical and graphical techniques. *MDPI Proceedings* 2(11), 629, 2018.

Caloiero, T., Coscarelli, R., Ferrari, E. Detection and analysis of severe dry hydrological phenomena in southern Italy (Calabria region). *Engineering geology* 138(152), 234, 2018.

Caloiero, T., Coscarelli, R., Ferrari, E., Sirangelo, B. Temporal Analysis of Rainfall Categories in Southern Italy (Calabria Region). *Environmental Processes* 4(1), 113-124, 2017.

Sirangelo, B., Caloiero, T., Coscarelli, R., Ferrari, E. A stochastic model for the analysis of maximum daily temperature. *Theoretical and Applied Climatology* 130(1-2), 275-289, 2017.

Caloiero, T., Coscarelli, R., Ferrari, E., Sirangelo, B. Trend analysis of monthly mean values and extreme indices of daily temperature in a region of southern Italy. *International Journal of Climatology* 37, 284-297, 2017.

- Sirangelo, B., Caloiero, T., Coscarelli, R., Ferrari, E. Stochastic analysis of long dry spells in Calabria (Southern Italy). *Theoretical and Applied Climatology* 127(3-4), 711-724, 2017.
- Caloiero, T., Coscarelli, R., Ferrari, E. Analysis of rainfall trend in southern Italy through the application of the ITA technique. *European Water* 59, 199-206, 2017.
- Caloiero, T., Sirangelo, B., Coscarelli, R., Ferrari, E. An analysis of the occurrence probabilities of wet and dry periods through a stochastic monthly rainfall model. *Water* 8(2), 39, 2016.
- Caloiero, T., Coscarelli, R., Ferrari, E., Sirangelo, B. Trends in the daily precipitation categories of Calabria (southern Italy). *Procedia engineering* 162(2016), 32-38, 2016.
- Caloiero, T., Buttafuoco, G., Coscarelli, R., Ferrari, E. Spatial and temporal characterization of climate at regional scale using homogeneous monthly precipitation and air temperature data: an application in Calabria (southern Italy). *Hydrology Research* 46(4), 629-646, 2015.
- Caloiero, T., Coscarelli, R., Ferrari, E., Sirangelo, B. Analysis of dry spells in southern Italy (Calabria). *Water* 7(6), 3009-3023, 2015.
- De Bartolo, S., Fallico, C., Ferrari, E. Simple scaling analysis of active channel patterns in Fiumara environment. *Geomorphology* 232, 94-102, 2015.
- Sirangelo, B., Caloiero, T., Coscarelli, R., Ferrari, E. A stochastic model for the analysis of the temporal change of dry spells. *Stochastic environmental research and risk assessment* 29(1), 143-155, 2015.
- Sirangelo, B., Ferrari, E. Analysis of the spatial correlation structure exhibited by daily rainfall in Southern Italy. *Theoretical and applied climatology* 118(1-2), 203-209, 2014.
- Ferrari, E., Caloiero, T., Coscarelli, R. Influence of the North Atlantic Oscillation on winter rainfall in Calabria (southern Italy). *Theoretical and applied climatology* 114(3-4), 479-494, 2013.
- D'Ippolito, A., Ferrari, E., Iovino, F., Nicolaci, A., Veltri, A. Reforestation and land use change in a drainage basin of southern Italy. *iForest-Biogeosciences and Forestry* 6(4), 175, 2013.
- Altava-Ortiz, V., Llasat, M.C., Ferrari, E., Atencia, A., Sirangelo, B. Monthly rainfall changes in Central and Western Mediterranean basins, at the end of the 20th and beginning of the 21st centuries. *International Journal of Climatology* 31(13), 1943-1958, 2011.
- Caloiero, T., Coscarelli, R., Ferrari, E., Mancini, M. Precipitation change in Southern Italy linked to global scale oscillation indexes. *Natural Hazards and Earth System Sciences* 11(6), 1683, 2011.
- Sirangelo, B., Ferrari, E., De Luca, D.L. Occurrence analysis of daily rainfalls through non-homogeneous Poissonian processes. *Natural Hazards and Earth System Sciences* 11(6), 1657, 2011.
- Caloiero, T., Coscarelli, R., Ferrari, E., Mancini, M.. Trend detection of annual and seasonal rainfall in Calabria (Southern Italy). *International Journal of Climatology* 31(1), 44-56, 2011.