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EDUCATION

1997: PhD Thesis dissertation, University of Padova (Italy). Thesis title: “Simulazione numerica delle proprietà statistiche dei campi di precipitazione” (“Numerical simulation of statistical properties of rainfall fields”)

1992: 5-year degree in Civil Engineering, with Hydraulic and Hydrology specialization, University of Cagliari (Italy). Thesis title: “Analisi regionale delle massime piogge giornaliere in Sardegna – Applicazione della distribuzione TCEV” (“Regional analysis of maxima daily rainfall in Sardinia: application of the TCEV distribution”)

PRESENT ACADEMIC POSITION AND PAST EMPLOYMENTS

2014 – present: Full Professor of Water Engineering (Costruzioni Idrauliche e Marittime e Idrologia - ICAR/02), University of Cagliari (Italy).

2000 –2014: Associate Professor of Water Engineering (Costruzioni Idrauliche e Marittime e Idrologia - ICAR/02), University of Cagliari (Italy).

1993 –2000: Expert Researcher at CRS4 (Centre for Advanced Studies, Research and Development in Sardinia, Italy).

PRIZES AND AWARDS

2008: Winner of a FULBRIGHT grant for a six-month research period that was spent for a visiting stay as Visiting Professor in the Massachusetts Institute of Technology (Cambridge, MA) from March 1, 2009 to August 31, 2009.

PRIOR PERFORMANCE

He has authored more than 50 scientific papers in international refereed leading journals and more than 100 papers and talks for scientific conferences. His H index is 23, total citations are > 1300 (Scopus, as of January 2021). Advised >10 PhD students. Member of the Scientific Board of more than 30 International and National Conferences. Managed as P.I. or co-P.I. >15 prior projects from Italian Space Agency, Italian Ministry of Research, Italian Ministry of Foreign Affairs, Italian National Council of Research, Italian National Agency for Environmental Protection, EU Framework Programme, Regional Agencies.

INSTITUTIONAL SERVICES

2019 - 2021: Member of the National Committee appointed by the Ministry for University (D.D. 2898/2018) that deliver national scientific qualification (Abilitazione Scientifica Nazionale) for Full and Associate Professor positions in Italian universities.

2019 – present: Coordinator of the group of international experts WATER4SDGs (Knowledge HUB in the Water JPI Eu programme)

2019 – present: Member of the Scientific Committee of WARREDOC (Water Resources Research and Documentation Centre)

2013 – present: Member of the Board of Directors of the Italian Hydrological Society
2013 – 2020: Coordinator of the Ph.D. programme “Dottorato in Ingegneria Civile e Architettura”, University of Cagliari.
2013/2014: Director of the Master programme “Master Rischio Idraulico”, University of Cagliari and CINID (Consorzio Interuniversitario per l'Idrologia)
2009 - 2014: Member of the Scientific Council of the “Consorzio Interuniversitario per l'Idrologia” (CINID).
2009 – present: Rector’s delegate Council of Members of the “Consorzio Interuniversitario per l'Idrologia” (CINID).
2004 – 2018: Rector’s delegate of the Council of Members of the “Consorzio Interuniversitario Nazionale di Fisica dell’Atmosfera e delle Idrosfere” (CINFAT).

SERVICE ACTIVITIES

Guest editor of Hydrology and Earth System Sciences, Natural Hazards and Earth System Sciences, Advances in Geosciences, Journal of Hydrology.

Reviewer of the following journals:

Water Resources Research; Journal of Geophysical Research; Journal of Hydrology; Geophysical Research Letters; Atmospheric Research; Hydrological Sciences Journal; Hydrological Processes; Journal of Hydrometeorology; Meteorology and Atmospheric Physics; Quarterly Journal of the Royal Meteorological Society; Advances in Geosciences; Advances in Water Resources; Physics and Chemistry of the Earth; Natural Hazards and Earth System Sciences; Nonlinear Processes in Geophysics; Journal of Atmospheric and Oceanic Technology; Journal of Stochastic Environmental Research & Risk Assessment; Urban Water Journal; Science of the Total Environment, International Journal of Climatology.

PRINCIPAL INVESTIGATOR IN SPONSORED RESEARCH PROJECTS

2021-2022: Scientific coordinator of the research project “Caratterizzazione ex-post di eventi meteorologici avversi avvenuti nel territorio della Regione Autonoma della Sardegna e implementazione di modellistica idrologica per la previsione di piena nei bacini minori”. Funded by the Civil Protection Agency of the Sardinia Region.

2019-2021: Scientific coordinator of the research project “HYDROSARD: Un approccio multidisciplinare integrato e multiscala per la valutazione globale delle risorse idriche nella Regione Sardegna, anche in condizioni di cambiamento climatico”. funded by the Sardinian Region (Italy) “L.R. 7/2007 Bando Progetti di ricerca di Base - Bando 2017”

2017-2019: Scientific coordinator of the research project “Revisione delle zone di allertamento per il rischio idraulico e idrogeologico localizzato e diffuso e delle corrispondenti soglie pluviometriche nel territorio della Regione Autonoma della Sardegna”. Funded by the Civile Protection Agency of the Sardinia Region.

2017-2020: Local scientific coordinator for the University of Cagliari for the activity “OR4: Rischi ambientali e sicurezza del cittadino” in the research project “Tessuto Digitale Metropolitano”. Funded by the Sardinia Region.

2015-2018: Scientific coordinator of the research project “Impatti antropogenici e climatici sul ciclo idrologico a scala di bacino e di versante”. funded by the Sardinian Region (Italy) “L.R. 7/2007 Bando Progetti di ricerca di Base - Bando 2013”

2011-2014: Scientific coordinator of the research project “Elaborazione della banca dati pluviometrica della Direzione Generale Agenzia Regionale del Distretto Idrografico della Sardegna

finalizzata all'aggiornamento delle curve segnalatrici di possibilità pluviometrica per l'intero territorio regionale". Funded by the Agenzia Regionale del distretto Idrografico della Sardegna.

2011-2012: Scientific coordinator of the Cooperation Agreement between the Dipartimento di Ingegneria del Territorio dell'Università di Cagliari and the Agenzia per la Protezione Ambientale della Regione Sardegna in the framework of the project "RES-MAR – Azione di sistema E - Modello di prevenzione e gestione delle dinamiche territoriali da dissesto idrogeologico", funded by Programma Operativo di Cooperazione Transfrontaliera Italia-Francia "Marittimo" 2007-2013.

2010-2013: Scientific coordinator of CINFAI unit of research in the research project "Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System (CLIMB)", funded by the "7th Framework Programme", call FP7-ENV-2009-1, topic ENV.2009.1.1.5.2.

2010-2011: Scientific coordinator of the research project "Valutazione degli impatti sul comportamento idrologico dei bacini idrografici e sulle produzioni agricole conseguenti alle condizioni di cambiamento climatico", funded by the Sardinian Region (Italy) "L.R. 7/2007 Bando Progetti di ricerca di Base - Bando 2008".

2010-2011: Scientific coordinator of a Research Unit for the research programme "Polarimetric radar measurements of precipitation to interpret, retrieve, and validate X-band Synthetic Aperture Radar observations", funded by the Italian Space Agency within the COSMO-SkyMed programme – call 2008.

2009: Co-PI of the research project "Mediterranean precipitation - Calibration and validation activities in Italy for the GPM mission", selected by the NASA program "Precipitation Measurement Missions (PMM) Research Program".

2008-2010: Scientific coordinator of the project "Global Climatic Changes and Their Impacts on Mediterranean Area focussing on North Coast of Egypt, Nile Delta and South Italy", funded by the "Executive programme of scientific and technological cooperation between Italy and Egypt for the years 2008-2010" by the Ministry of Foreign Affairs.

2008: Technical-scientific coordinator of the pilot project "Studio finalizzato al recupero e la lettura digitale di strisce pluviometriche settimanali di pluviografi a bascula SIAP" ("Pilot study aimed at automatic recognition of rainfall signals recorded in strip charts by SIAP tipping-bucket rain gages"), funded by the Italian National Agency for Environmental Protection (APAT) within the FORALPS project in the UE INTERREG-III B programme.

2007-2008: Technical-scientific coordinator of the project "Studio preliminare del sistema idraulico degli stagni Bellarosa minore e Perdalonga a seguito di eventi meteorici critici", funded by Consorzio di gestione del Parco Naturale Regionale "Molentagius-Saline".

2005-2006: Technical-scientific coordinator of the "CADSEALAND" (Land-sea interaction: coastal state and evolution in CADSES) project, funded by the EU INTERREG-III B programme, measure 4.3, project code 3B005. Coordination of 11 partners.

2003-2004: Scientific coordinator of a Research Unit for the research programme "Caratterizzazione statistica delle precipitazioni intense su basi dati ad alta risoluzione temporale", funded by the Italian PRIN 2003 programme, Prot. MIUR Uff. VIII n. 2148 date 24/10/2003.

2002-2005: Scientific coordinator of a Research Unit for the research programme "Valutazione e previsione dei processi idrologici al suolo di rilevante impatto socio-economico, utilizzando dati di previsione meteorologica", funded by Piani Operativi Nazionali – MIUR.

2002: National coordinator for the research programme "Analysis of space-time variability of remotely-sensed rainfall fields", funded by the Italian Space Agency.