

# CV Giorgio BUDILLON

Address: Dipartimento di Scienze e Tecnologie – Università degli Studi di Napoli “Parthenope”  
Centro Direzionale – Isola C4 – 80143 Napoli.  
Email: giorgio.budillon@uniparthenope.it  
Tel. +39 081 5476584-60  
Mob. +39 329 6506098

## 1) Education, past and current working position

Giorgio Budillon was born in Napoli (Italy) on 13 June 1962 and completed his degree in Nautical Sciences, majoring in Physical Oceanography, at the Istituto Universitario Navale of Napoli in 1989. Since 2012 he has been Full Professor in “Oceanography and Atmospheric Physics” at the Università of Napoli “Parthenope” and Director of Department of Science and Technology since 2017.

He is a field-going physical oceanographer, an observationalist. His research is primarily directed at the ocean's stratification, circulation and mixing and its role in Earth's climate system. Historically much of his research deals with the Southern Ocean (Pacific Sector and Ross Sea), but studies of the warmer waters of the Mediterranean Sea compose a relevant part of his research activity started in 1991. He has participated in 46 oceanographic expeditions - national and international programs - mainly in the Mediterranean and in Antarctica, some of them as Principal Investigator. In the last years he studied the transfer of heat and freshwater within the ocean and between the ocean, cryosphere and atmosphere in both coastal and oceanic environments with specific attention to stratified ocean bodies, to interbasin exchanges, to the dense water formation, to the ventilation of the deep ocean interior, to the polynya processes, and to sea-air-ice interactions.

He has been member of the National Scientific Commission for Antarctica (since 2016), national representative of the Southern Ocean Observing System (since 2014), member of the Scientific Committee of the National Technological Cluster "Blue Italian Growth" (since 2018).

## 2) Scientific publications and editorial activity

He is co-author of:

- 76 articles in scientific journals with referees (1 encyclopaedia);
- 45 other scientific and dissemination papers;
- 54 technical reports and non-refereed publications.

His current bibliometric indicators are:

- h-index: 20 (Scopus), 19 (ISI Web of Knowledge) and 24 (Google Scholar)
- citations: 1501 (Scopus), 1218 (ISI Web of Knowledge) and 2507 (Google Scholar)

As guest editor he produced the special issue of “Journal of Marine Systems” [www.sciencedirect.com/journal/journal-of-marine-systems/vol/166](http://www.sciencedirect.com/journal/journal-of-marine-systems/vol/166) on “Mesoscale and high-frequency variability in the Ross Sea (Antarctica)” 2017; he is now guest editor for the special issue of “Chemistry & Ecology” on “ABBACO - Restauro Ambientale e Balneabilità del SIN Bagnoli-Coroglio - Environmental Repair of SIN Bagnoli-Coroglio”.

## 3) Teaching responsibilities and Master's Thesis /PhD supervisor

He has a very long experience as teacher at university level in Italy where he teaches continuously since 1995 and as supervisor of students at master and PhD level.

a) He currently teaches at the University of Napoli “Parthenope”:

- Meteorologia (Meteorology), Bachelor's degree: Scienze Nautiche, Aeronautiche e Meteo-oceanografiche (Nautical, Aeronautical and Meteo-Oceanographic Sciences)

- Oceanografia Costiera e Misure (Coastal Oceanography and Measurements), Master degree: Scienze e Tecnologie della Navigazione (Science and Technology of Navigation)

b) He had been supervisor of:

- PhD program in “Fenomeni e Rischi Ambientali” (Environmental Phenomena and Risks): 3 (1 in progress)
- PhD program in “Scienze della Terra, Ambientali e Polari” (Earth, Environmental and Polar Sciences): 2
- PhD program in “Scienze del Mare, della Terra e del Clima” (Sea, Earth and Climate Sciences): 1
- PhD program in “Scienze Ambientali, Ambiente Marino e Risorse” (Environmental Sciences, Marine Environment and Resources): 4
- PhD program in “Scienze Polari” (Polar Sciences): 5 (1 in progress)
- Master’s degree in “Nautical Science”, “Science and Technology of Navigation”, “Environmental Sciences”: more than 35
- PostDocs in physical oceanography and environmental sciences: 7 (2 in progress)

#### 4) Projects/programmes

He took part to international and national scientific projects. Main projects and responsibility are listed below:

- 2019 PI for the Collaboration Agreement with the Special Commissioner of the Universiade Napoli 2019 30th edition for the "Realization and dissemination of meteorological forecast and observational products". Amount € 12 000.
- 2018-21 PI of the Local Unit of the PON "ARES" project. Amount: € 150 000.
- 2018-21 PI of the Local Unit of the PON project "AEROMAT". Amount: € 450 000.
- 2019-21 PI of the Technical-Scientific Consultancy Contract with "Autostrade spa" aimed at the "Optimization of nowcasting techniques and methods with X-band Radar systems" and the "Weather forecasting service to support the management of motorway traffic on the routes of the A16 from Naples to Canosa, of the A30 from Caserta to Salerno and of the A1 from Caianello to Naples". Amount: € 65 000.
- 2018-22 PI of the Local Unit (Ocean Dynamics) for the CoNISMa of the "TERNA Sorrento - Capri" project. Amount: € 50 000.
- 2018-20 PI of the Local Unit of the "PAUN" project on PON03 funds. Amount: € 35 224.
- 2018-20 PI for the project "MoQAP - Maritime Operations Quality Assurance Platform" (in collaboration with SIRM SpA) on Horizon 2020 - PON 2014/2020 funds. Amount: € 2 588 124.
- 2015-18 PI of the project "MORSea - Marine Observatory in the Ross Sea" of the National Research Program in Antarctica. Amount: € 89,000.
- 2016 PI of the project "ABACUS 2 - Algerian BASin Circulation Unmanned Survey", FP7 - JERICO, Application for Transnational Access to Coastal Observatories, 4th Call. Amount: € 4 800
- 2014-15 PI of the project “EnviroNET” interdepartmental project related to the call "Call for tenders for innovation - CAMPANIA START-UP PROJECTS" (Operational Objective 2.1 P.O.R. ERDF Campania 2007/2013). Amount: € 854 000
- 2014-17 PI of the project "Implementation of the Environmental Monitoring Plan in the Marine Area involved in the construction of the 150 KV power line - New Capri Electric Station - CP Torre Annunziata Centro", commissioned by TERNA at the ATS set up by CoNISMa (Lead Partner) -CNR- SZN-CIBM. Amount: € 2 849 699
- 2014-16 PI of the project "MUN - Urban Meteorology Naples", Regional funds - Campania Region. Amount: € 15 000
- 2014-15 PI of the project "Beach Flood Alert System", commissioned by the Municipality of Naples - Sea Resource Service. Amount: € 24 000

- 2014 PI of the project "ABACUS - Algerian BASin Circulation Unmanned Survey", FP7 - JERICO, Application for Transnational Access to Coastal Observatories, 3rd Call. Amount: € 4 200
- 2013-14 PI of the project "Monitoring of the Gulf of Taranto" commissioned by the Lande s.p.a.. Amount: € 11 000
- 2012-17 PI of the Local Unit "S4-WP4-A2-UO04 Deep circulation in the Tyrrhenian Sea: temporal space variability and interactions" of the RITMARE Flag Project financed by the MIUR. Amount: € 550 000
- 2012-17 PI of the Local Unit "S5-WP6-A4-UO01 Demonstration of the functionality of new generation commercial autonomous vehicles in the context of an integrated observing system" of the RITMARE Flag Project funded by MIUR. Amount: € 200 000
- 2012-16 PI of the project "T-REx / A, TerraNovaBay Research Experiment - ARGO" funded by INOGS (National Institute of Oceanography and Experimental Geophysics). Amount: € 28 500
- 2010-16 Partner of the Hydrochanges project "Continuous, long-term measurements of temperature & salinity of Mediterranean deep waters in key areas - a priority in the current context of global warming" of the CIESM (The Mediterranean Science Commission).
- 2010-16 PI of the project "Monitoring of activities relating to the study of solid transport during and after dredging operations - Molfetta commercial port" funded by the Municipality of Molfetta (BA). Amount approximately € 700 000
- 2010-15 PI of the project "T-REx, TerraNovaBay Research Experiment" project funded by MIUR. Amount: € 100 000
- 2010 Partner of DIP.TE.RIS. (Univ Genoa) for the project "Study of the diffusion of emissions of the submarine pipeline of the purification plant of Punta Vagno", financed by the Genoa Aquarium - Costa Edutainment S.p.A. Amount: € 5 000
- 2009-11 Partner of the project "Environmental compatibility study of the exploitation of submerged deposits along the Tuscan continental shelf for beach nourishment", financed by the Tuscany Region with CIBM leader (partners: CoNISMa GEOPOLARIS, CIRSPE, Thetis). Amount: € 35 000
- 2008-13 PI of the project "SaPeI" project between CoNISMa (Interuniversity Consortium for Marine Sciences) and TERNA s.p.a. for verification of compliance with CIPE resolution no. 144/2005 regarding environmental requirements.  
([http://www.enel.it/attivita/ambiente/energy/energia22\\_hp/energia22/sapei/](http://www.enel.it/attivita/ambiente/energy/energia22_hp/energia22/sapei/)). Amount: € 209,000
- 2008 PI of the project "SMOS and in situ data to estimate heat flux and transport in the Southern Ocean" (I.D. 4697, First SMOS Data Announcement of Opportunity) (<http://www.esa.int/esaCP/index.html>).
- 2008 PI of the project "Monforte S. Giorgio - Policastro Bussentino Gas Sealine - SnamReteGas" for the realization of current and hydrological surveys in the Central Tyrrhenian Sea. Amount: € 118 800
- 2008 Project partner "A didactic experiment on the atmosphere structure USV-MIDAS (USV Mission DATA Show)" USV Future Flights Experiments in the context of PROR-USV program", Italian Space Agency.
- 2007-09 PI of the Research Unit "Generation of vortices and transport variability in the Southern Ocean" for PRIN2006 "Deterministic and statistical properties of large-scale vortices in the Atmosphere and the Ocean: an observational, mathematical, numerical study" (MIUR Funds).  
(<http://www.unicam.it/matinf/pasef/cofin2006.html>). Amount: € 35 619
- 2007-08 Partner of the project "MarineFields (Marine Surface Analysis for Maritime Safety Environmental Defense) for COSMO-SkyMed" (ASI Call for Cosmo SkyMed; ID -1420) (<http://www.asi.it/SiteIT/Default.aspx>).

- 2007-08 Partner of the project "Islands of the Gulf and Punta Campanella", POR Campania 2000/06 Measure 3.18 FSE.
- 2007-08 Partner of the CISM Project (International Center for Sea Sciences) PIC - INTERREG III - Italy-Albania Measure 2.1: ENVIRONMENTAL PROTECTION AND ENHANCEMENT (Interrg Funds).
- (<http://www.cismalbania.it/home.html>)
- 2007 PI of the project "Hydrological and current meter measurements in the area facing the Acciaroli coastline Municipality of Pollica - SA)".
- 2006 PI of the project "ATMOSFERA-NAPOLI" (<http://atmosfera.portici.enea.it/>). Amount: € 50 400
- 2005-08 PI of the "Physics of the Sea" Research Unit within the "CIESM-SUB" project of the "Commission Internationale pour l'Exploitation de la Méditerranée" (CIESM).
- (<http://www.ciesm.org/marine/campaigns/index.htm>)
- 2004-06 PI of Research Unit "CLIMA IV" Project of the National Research Program in Antarctica (PNRA s.c.r.l. Funds). Amount: € 70 750
- 2004-06 PI of the Research Unit within the "CANOPO" Project of the National Research Program in Antarctica (PNRA s.c.r.l. Funds).
- (<http://www.clivar.org/organization/southern/process.htm>). Amount: € 12 250
- 2004-06 Partner of the convention "Investigations on suspended particulate matter and physical and dynamic characteristics in three areas to be dredged for nourishment purposes" between the University of Genoa and the ICRAM (Central Institute for Applied Scientific and Technological Research at the sea).
- 2004-05 Partner of the FIRB project "Biodiversity and community organization in different environmental contexts" (MIUR Funds).
- 2004 Partner of the SOCEUM project "Feasibility Study for Training activities to be organized within the Euro-Mediterranean Center for Climate Change" for the activities of the University of Naples "Parthenope" (Ministry of the Environment and Protection of Land and the Sea).
- 2003-06 Partner of the FIRB APLABES project "Bioconstruction in white corals in the northern Ionian Sea-Apulian Plateau Bank" (MIUR Funds).
- 2002-03 PI of the Research Unit "Coastal processes of transformation of water masses and associated biogeochemical signals" within the "CLIMA" project of the National Research Program in Antarctica (PNRA Funds). Amount: € 81 800
- 2002-03 PI of the project "An integrated study of the hydrodynamic conditions of the coastal strip of the gulfs of Naples and Salerno" (MIUR Funds). Amount: € 15 764.36
- 2000-01 PI of the Research Unit "Coastal Surface Circulation" for the PRIN2000 "Forecast of the state of the Adriatic Sea: a study of the sea air iterations" (MIUR Funds). Amount: € 41 317
- 2000-01 Partner of the "Project of a monitoring network of marine waters of the lower Adriatic (ITALY - ALBANIA)" (Interreg Funds).
- 1999-00 Partner of the project "Water management network of the southern Adriatic Sea and Ionian Sea - Protection of the marine environment (ITALY - GREECE)" (Interreg Funds).
- 1998-99 PI of the project "Estimation of the Pluviometric Regime using. Radar measurements: analysis and validation "(MURST Funds).
- 1997-03 Partner of the project "SINAPSI - Seasonal, INterannual and decAdal variability of the atmosPhere, oceanS and related marIne ecosystems" (MIUR Funds).
- 1997-98 PI of the Research Unit "Hydrology and Dynamics" of the project "Structure and Dynamics of Marine Cenosis of the Bay of Terra Nova" of the National Research Program in Antarctica (PNRA Funds).

**5) He has carried out referral activities for international projects, journals and books; including:**

- "Developments in Marine Technology Series" Elsevier; title "Science-Technology Synergy for the Research in Marine Environment: long term deep sea observatories";
- 35° Congress of the "Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée" (CIESM);
- "Journal of Marine Systems";
- "Bollettino di Geofisica Teorica ed Applicata";
- "Marine Ecology, PSZN";
- "Geophysical Research Letters"
- "Journal of Geophysical Research – Oceans"
- CIVR (Steering Committee for Research Evaluation) - MIUR.
- PRIN (Research Projects of National Interest) - MIUR
- Call "Futuro in Ricerca" (Puglia Region).
- EUROFLEETs+ project ([www.eurofleets.eu](http://www.eurofleets.eu)).

**6) Roles and Institution Positions**

- Since 2019 he has been member of the Regional Precision Agriculture Observatory (L.R.15 / 2018 art.4).
- Since 2019 he has been member of the "Executive Board" for the management of the Italian icebreaker "Laura Bassi".
- Since 2018 he has been member of the Scientific Committee of the National Technological Cluster "Blue Italian Growth" <http://www.clusterbig.it/>.
- Since July 2017 he has been the Director of the Department of Science and Technology of the University of Naples "Parthenope", <http://www.scienzeetecnologie.uniparthenope.it/>.
- Since 2017 he has been a member of the Scientific Council of the Master's Degree II level in "Meteorology and Physical Oceanography" (Administrative Office of the University of Salento), <http://master.meteorologiaeoceanografiafisica.unisalento.it/index.php/consiglio-scientifico>.
- Since 2016 he has been member of the Academic Senate of the University of Naples "Parthenope", <http://www.uniparthenope.it/index.php/it/senatocompiti>.
- Since 2016 he has been member of the National Scientific Commission for Antarctica (D.M. 169 of 21.3.2016), <http://www.csna.it/composizione.html>.
- Since 2016 he has been member of the CRAVEB Scientific Committee - "Research Consortium for the Environment, Energy, and Biofuels Vehicles", <https://www.craveb.it/organi/>
- From 2016 to 2018 he had been member of the National Scientific Qualification Commission (ASN) for the 04 / A4 "Geophysics".
- From 2015 to 2016 he had been the contact person for University Research at the University of Naples "Parthenope".
- Since 2014 he has been the national representative of the Southern Ocean Observing System (SOOS), <http://www.soos.aq/network/national-communities>.
- Since 2014 he has been member of the SCAR (Scientific Committee on Antarctic Research) Permanent Scientific Committee for Physical Sciences, <http://www.scar.org/20-mg-prilosec.pdf>.
- From 2013 to 2017 he had been Deputy Director of the Department of Science and Technology of the University of Naples "Parthenope", <http://www.scienzeetecnologie.uniparthenope.it/>.
- From 2013 to 2014 he had been a member of the University Quality Presidium of the University of Naples "Parthenope".
- From 2015-2016 he had been Rector representative for the University research - Università "Parthenope" of Napoli.
- From 2012 to 2016 he had been a member of the Polar Research Committee of the National Research Council.

- Since 2012 he has been the Rector's delegate for the "Center for the Development and Transfer of Innovation in the Cultural and Environmental Heritage Sector - INNOVA s.c.a.r.l.", <http://www.innova.campania.it/>
  - From 2011 to 2014 he had been Research Associate at the National Institute of Geophysics and Volcanology in Rome.
  - From 2011 to 2014 he had been Research Associate at the Institute of Atmospheric Sciences and Climate (CNR) in Rome.
  - Since 2005 he has been the Rector's delegate for the National Inter-University Consortium for the Physics of Atmospheres and Hydrosphere (CINFAL, a consortium of 23 Italian universities) as well as a member of the Administrative Council from 2008 to 2019.
- At the University of Naples "Parthenope" he had been for many years a representative of researchers in the Faculty of Nautical Sciences and in the University's Board of Directors. He had been a representative of the Associate Professors on the University Board of Directors in the three-year period 2006-08 as well as a member of the Administrative Board of the Department of Environmental Sciences.
- He had been a member of the Scientific Council of a number of scientific associations and conferences, a member of the executive committee of advanced courses and chairman of national and international conferences.
  - He carried out referral activities for important sector magazines, including: Journal of Climate; Journal of Geophysical Research; Journal of Marine Systems; Journal of Coastal Research; Advances in Oceanography and Limnology; PSZN I Marine Ecology.
  - He is a member of the Editorial Board of the following international journals: "Advances in Oceanography and Limnology" (from 2010), "Journal of Ocean and Climate" (from 2018), "Bulletin of Atmospheric Science and Technology" (from 2019);
  - He had been Guest Editor for the special issue of "Journal of Marine Systems" dedicated to the topic: Mesoscale and high-frequency variability in the Ross Sea (Antarctica) 2016-17.
  - He is currently Guest Editor for the special issue of "Chemistry & Ecology" dedicated to the project "ABBACO Environmental Restoration and Bathing of SIN Bagnoli-Coroglio".

## **7) Other main activities and responsibilities**

- Professor of "Physical Oceanography", Università di Messina, Italy (2003-2008).
- Member of the Scientific Committee of the Master in "Meteorology and Physical Oceanography" (<http://master.meteorologiaeoceanografiafisica.unisalento.it/index.php/consiglio-scientifico>) since 2017.
- Member of the President Committee of the AIOL - Associazione Italiana di Oceanologia e Limnologia (2003-2007).
- Member of the Administration Council of the Università degli Studi di Napoli Parthenope (2001-2008).

November 2019