

DOROTEACIRO IOVINO

PERSONAL INFORMATION

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Nationality Italian

EDUCATION

- 2007 Ph.D. in Physical Oceanography, University of Bergen, Norway. Thesis: “*On the Nordic Seas' role in the stability of the Atlantic Meridional Overturning Circulation*”. Advisors: Prof. Helge Drange, Prof. Tor Eldevik, Dr. Fiammetta Straneo.
- 2001 Laurea cum laude, Università degli Studi di Napoli Parthenope. Thesis in Physical Oceanography: “*Modeling of oceanic wind driven fluctuations: general aspects and analysis of eddy viscosity biharmonic parameterization*”. Advisor: Prof. Stefano Pierini.

PROFESSIONAL EXPERIENCE

July 2012 – present: Scientist at Euro-Mediterranean Center on Climate Change (CMCC), Bologna, Italy.

September 2007 – June 2012: Postdoctoral Researcher at the Laboratoire d'Océanographie et du Climat: Expérimentation Approches Numériques, Paris, France.

January – April 2006: Guest Student at the Woods Hole Oceanographic Institution, Woods Hole, MA, USA.

January 2004 – June 2007: PhD Student at the Nansen Environmental and Remote Sensing Center, Bergen, Norway. Norwegian project PROCLIM (Polar Ocean Climate Processes).

October 2002 – August 2003: Research Consultant at the Istituto Nazionale di Geofisica e Vulcanologia, Bologna, Italy.

April – September 2002: Research Fellowship at the Istituto Nazionale di Geofisica e Vulcanologia, Bologna, Italy. Advisor: Dr. Simona Masina. European project ENACT.

OTHER SCIENTIFIC ACTIVITIES

Research Leader of the Ocean and Sea-Ice Modeling group within the Ocean Modeling and Data Assimilation Division at CMCC since 2015.

Member of the CLIVAR Ocean Model Development Panel (OMDP) since 2020

<http://www.clivar.org/clivar-panels/omdp>

Member of the CLIVAR/CliC Northern Oceans Regional Panel (NORP) since 2017

<http://www.clivar.org/clivar-panels/northern>

Member of the NEMO sea ice Working Group since 2016.

NEMO Expert for the CMCC within the NEMO System Team for the 2012-2013 period and since 2021.

NEMO Officer for the CMCC within the NEMO System Team (www.nemo-ocean.eu/About-Us) for the period 2013-2020.

Lecturer in the Ph.D. programme in Science and Management of Climate Change at CMCC/University Ca' Foscari:

- Polar Climate and Sea Ice since a.y 2014/2015
- Polar Oceanography and Sea Ice, a.y. 2013/2014
- Sea Ice and Polar Climate Dynamics, a.y. 2012/2013

Lecturer in the Ph.D. programme in Future Earth, Climate Change and Societal Challenge at University of Bologna:

- Numerical modeling for coupled ocean-ice-atmosphere and hydrology system since a.y 2019/2020

Proposal reviewers (e.g. European Research Council, NERC Large Grant Scheme, The US National Science Foundation NSF).

Scientific Paper Reviewer (e.g. Scientific Reports, Journal of Physical Oceanography, Frontiers in Marine Science, Ocean Science, Journal of Geophysical Research, Geoscientific Model Development,).

CURRENT PROJECTS

MEDLEY: MixED Layer hETerogeneity (JPI Climate & JPI Oceans). 2020-2022 (CMCC coordinator)

114-R&D-GLO-RAN-CMEMS Lot N. 8: Intercomparison And Ocean Indicators For The High Latitudes. 2019-2021 (Coordinator and Principal Investigator)

IMMERSE: Improving Models for Marine EnviRonment Services. European Union Horizon2020 project. 2018-2022 (Scientific board member, CMCC coordinator, WP leader)

ESiWACE2: Centre of Excellence in Simulation of Weather and Climate in Europe. European Union Horizon2020 project. 2019-2022

IS-ENES3: Infrastructure for the European Network of Earth System Modelling. European Union Horizon2020 project. 2019-2022

ESCAPE 2: Energy-efficient SCalable Algorithms for weather and climate Prediction at Exascale. European Union Horizon2020 project. 2018-2021

PAST PROJECTS

INVASI: INterannual Variability of the Antarctic Sea Ice/ocean system from ocean reanalyses. National Antarctic Research Program (PNRA), 2019-2021 (coordinator)

PRIMAVERA: PRocess-based climate sIMulation: AdVances in high-resolution modelling and European climate Risk Assessment. European Union Horizon2020 project. 2015-2020. (WP coleader)

CMCC strategic projects (2017-2018):

- NEMO Evolution
- A Multi-hazards prediction and analysis testbed for the Global Coastal Ocean

ROMEO: Understanding the role of mesoscale eddies in the global ocean. Project awarded in the PRACE 15th Regular Call. 2017-2018.

CATARSI: Climatically-driven changes in Antarctic sea ice and their role in the climate system. National Antarctic Research Program (PNRA), MIUR, 2014-2016 (coordinator)

GEMINA (MIUR/MATTM). 2012- 2015.

ENS4OCEAN: Ensemble-based approach for global ocean forecasting. Project awarded in the PRACE 8th Regular Call. 2014-2015.

Is-ENES: Infrastructure for the European Network for Earth System Modeling, 2011-2012.

THOR: Thermohaline Overturning at Risk? 2009-2010.

TWISTED: Toward Integration of Subgrid Turbulence in Ecosystem Dynamic. 2007-2009.

PROCLIM: Polar Ocean Climate Processes. 2004-2007.

PH.D. SUPERVISION

Elena Bianco, *Sub-seasonal to seasonal drivers of Arctic sea ice variability*, University Ca' Foscari, Venice, ongoing

Julia Selivanova, *Advanced ocean\sea ice modelling of the high-latitude dynamics*, University of Bologna, ongoing

- Federica Borile, *Global ocean energy budgets from a hierarchy of numerical simulations*, University of Bologna, ongoing
- Federica Facchinetti, *Seasonal to interannual variability on the east Greenland shelf: a study focused on the Sermilik Fjord area*, University Ca' Foscari, Venice, 2020
- Giulia Bonino, *A modelling framework for EBUS: from seasonal to decadal time scales*, University Ca' Foscari, Venice, 2019
- Dario Nicoli, *Global climate impact of the Atlantic multidecadal variability: a model-based approach*, University Ca' Foscari, Venice, 2019
- Enea Montoli, *Interactions between ice shelves and ocean in Antarctica: grounding line dynamics and ocean properties*, University Ca' Foscari, Venice, 2018

PUBLICATIONS

PEER-REVIEWED

- Bonino et al.: Drivers and impact of the seasonal variability of the organic carbon offshore transport in the Canary upwelling system. *Biogeosciences*, 2021. doi: 10.5194/bg-18-2429-2021
- Trotta et al.: A Relocatable Ocean Modeling Platform for Downscaling to Shelf-Coastal Areas to Support Disaster Risk Reduction. *Frontiers in Marine Science*, 2021. doi: 10.3389/fmars.2021.642815
- Meccia, V., **D. Iovino** and A. Bellucci: North Atlantic gyre circulation in PRIMAVERA models. *Climate Dynamics*, 2021. doi: 10.1007/s00382-021-05686-z
- Nicoli, D., A. Bellucci A., **D. Iovino**, P. Ruggieri, S. Gualdi: The impact of the AMV on Eurasian summer hydrological cycle. *Scientific Reports*, 2020. doi: 10.1038/s41598-020-71464-2
- Tsujino, H, et al.: Evaluation of global ocean–sea-ice model simulations based on the experimental protocols of the Ocean Model Intercomparison Project phase 2 (OMIP-2). Geoscientific Model Development, doi: 10.5194/gmd-13-3643-2020
- Roberts, M., et al.: Sensitivity of the Atlantic Meridional Overturning Circulation to Model Resolution in CMIP6 HighResMIP Simulations and Implications for Future Changes. *Journal of Advances in Modeling Earth Systems*, 2020. doi: 10.1029/2019MS002014
- Jackson, L., et al: Impact of ocean resolution and mean state on the rate of AMOC weakening. *Climate Dynamics*, 2020. doi:10.1007/s00382-020-05345-9
- Blockley, E., et al.: The future of sea ice modelling: where do we go from here? *Bulletin of the American Meteorological Society*, 2020 doi:10.1175/BAMS-D-20-0073.1
- SIMIP community: Arctic Sea ICE in CMIP6. *Geophysical Research Letters*, 2020. doi: 10.1029/2019GL086749
- Hirschi, et al.: The Atlantic meridional overturning circulation in high resolution models. *Journal of Geophysical Research: Oceans*, 2020. doi: 10.1029/2019JC015522
- Bonino, G., E. Di Lorenzo, S. Masina, and **D. Iovino**: Interannual to decadal variability within and across the major Eastern Boundary Upwelling Systems. *Scientific Reports*, 2019. doi:10.1038/s41598-019-56514-8

- Jackson, L., et al.: The Mean State and Variability of the North Atlantic Circulation: A Perspective From Ocean Reanalyses. *Journal of Geophysical Research: Oceans*, 2019. doi:10.1029/2019JC015210
- Storto, A., et al.: Ocean Reanalyses: Recent Advances and Unsolved Challenges. *Front. Mar. Sci.*, 2019. doi: 10.3389/fmars.2019.00418
- Penny S., et al.: Observational Needs for Improving Ocean and Coupled Reanalysis, S2S Prediction, and Decadal Prediction. *Front. Mar. Sci.*, 2019. doi:10.3389/fmars.2019.00391
- Morioka, Y., T. Doi, **D. Iovino**, S. Masina, S.K. Behera, Role of sea-ice initialization in climate predictability over the Weddell Sea. *Scientific Reports*, 2019. doi: 10.1038/s41598-019-39421-w.
- Bonino et al.: Eastern Boundary Upwelling Systems response to different atmospheric forcing in a global eddy-permitting ocean model. *Journal of Marine Systems*, 2019. doi: 10.1016/j.jmarsys.2019.05.004
- Docquier et al.: Impact of model resolution on Arctic sea ice and North Atlantic Ocean heat transport. *Climate Dynamics*, 2019. doi: 10.1007/s00382-019-04840-y
- Storto et al.: The added value of the multi-system spread information for ocean heat content and steric sea level investigations in the CMEMS GREP ensemble reanalysis product. *Climate Dynamics*, 2018. doi: 10.1007/s00382-018-4585-5
- Grist et al.: Increasing Atlantic Ocean heat transport in the latest generation coupled ocean-atmosphere models: The role of air-sea interaction. *JGR – Oceans*, 2018. doi: 10.1029/2018JC014387
- Cherchi et al.: Global mean climate and main patterns of variability in the CMCC-CM2 coupled model. *Journal of Advances in Modeling Earth Systems*, 2018. doi: 10.1029/2018MS001369
- Uotila et al.: An assessment of ten ocean reanalyses in the polar regions. *Climate Dynamics*, 2018. doi:10.1007/s00382-018-4242-z
- Cipollone, A., S. Masina, A. Storto, and **D. Iovino**: Benchmarking the mesoscale variability in global ocean eddy-permitting numerical systems. *Ocean Dynamics*, 2017. doi:10.1007/s10236-017-1089-5
- Haid, V., **D. Iovino**, and S. Masina: Impacts of freshwater changes on Antarctic sea ice in an eddy-permitting sea-ice–ocean model. *The Cryosphere*, 2017. doi:10.5194/tc-11-1387-2017
- Uotila, P., **D. Iovino**, M. Vancoppenolle, M. Lensu, and C. Rousset: Comparing sea ice, hydrography and circulation between NEMO3.6 LIM3 and LIM2. *Geosci. Model Dev.*, 2017. doi:10.5194/gmd-10-1009-2017
- Stepanov V., **D. Iovino**, S. Masina, A. Storto, A. Cipollone: Observed and simulated variability of the Atlantic Meridional Overturning Circulation at 41°N. *Journal of Marine Systems*, 2016. doi: 10.1016/j.jmarsys.2016.08.004
- Stepanov, V., **D. Iovino**, S. Masina, A. Storto, A. Cipollone: The impact of horizontal resolution of density field on the calculation of the Atlantic meridional overturning circulation at 34°S. *Journal of Geophysical Research – Ocean*. doi: 10.1002/2015JC011505
- Stepanov, V., **D. Iovino**, S. Masina, A. Storto, A. Cipollone: Methods of calculation of the Atlantic meridional heat and volume transports from ocean models at 26.5°N. *Journal of Geophysical Research – Ocean*, 2016. doi:10.1002/2015JC01100

- **Iovino, D.**, S. Masina, A. Storto, A. Cipollone, and V. N. Stepanov: A 1/16° eddy simulation of the global NEMOv3.4 sea ice-ocean system. A 1/16° eddy simulation of the global NEMOv3.4 sea ice-ocean system. *Geosci. Model Dev.*, 2016. doi:10.5194/gmd-9-2665-2016
- Ilicak, M., et al.: An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part III: Hydrography and fluxes. *Ocean Modelling*, 2016. doi:10.1016/j.ocemod.2016.02.004
- Wang, Q. et al.: An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part II: Liquid freshwater. *Ocean Modelling*, 2016. doi:10.1016/j.ocemod.2015.12.009
- Wang, Q. et al.: An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part I: Sea ice and solid freshwater. *Ocean Modelling*, 2016. doi:10.1016/j.ocemod.2015.12.008
- Colleoni, F., S. Masina, A. Cherchi, and **D. Iovino**: Impact of Orbital Parameters and Greenhouse Gas on the Climate of MIS 7 and MIS 5 Glacial Inceptions. *Journal of Climate*, 2014. doi:10.1175/JCLI-D-13-00754.1
- Lévy, M., L. Resplandy, P. Klein, X. Capet, **D. Iovino**, C. Ethé: Grid degradation of submesoscale resolving ocean models: Benefits for offline passive tracer transport. *Ocean Modelling*, 2012. doi:10.1016/j.ocemod.2012.02.004
- Lévy, M., **D. Iovino**, L. Resplandy, P. Klein, G. Madec, A.-M. Treguier, S. Masson, K. Takahashi: Large-scale impacts of submesoscale dynamics on phytoplankton: local and remote effects. *Ocean Modelling*, 2011. doi:10.1016/j.ocemod.2011.12.003
- Lévy, M., P. Klein, A.-M. Treguier, **D. Iovino**, G. Madec, S. Masson, and K. Takahashi: Modification of gyre circulation by sub-mesoscale physics. *Ocean Modelling*, 2010. doi:10.1016/j.ocemod.2010.04.001
- Lévy, M., **D. Iovino**, S. Masson, G. Madec, P. Klein, A.-M. Treguier, and K. Takahashi: Remote impact of Sub-Mesoscale Dynamics on new production. *Mercator Ocean Quarterly Newsletter*, 2009.
- Eldevik, T., J.E.Ø. Nilsen, **D. Iovino**, K.A. Olsson, A.B. Sandø, and H. Drange: Observed sources and variability of Nordic seas overflow. *Nature Geoscience*, 2009. doi:10.1038/NGEO518
- **Iovino, D.**, F. Straneo, M.A. Spall: On the effect of a sill on dense water formation in a marginal sea. *Journal of Marine Research*, 2008. doi:10.1357/002224008786176016

OTHER MANUSCRIPTS

- Bonino, G., **D. Iovino**, S. Masina: Bulk Formulations in NEMOv.4: algorithms review and sea surface temperature response in ORCA025 case study, Technical Notes Issue TN0289, 2020.
- Baordo, F., E. Clementi, **D. Iovino**, S. Masina: Intercomparison and assesement of wave models at global scale. Technical Notes Issue TN0287, 2020.
- NEMO System Team: Main achievements for NEMO evolution during Myocean period. *Mercator Ocean Quarterly Newsletter*, 54, 94-101, 2016.
- **Iovino D.**, A. Storto, S. Masina, A. Cipollone, and Vladimir Stepanov: GLOB16, the CMCC

- global mesoscale-eddy ocean. Research Papers Issue RP0247, 2014.
- Fogli P.G., **D. Iovino**: CMCC–CESM–NEMO: toward the new CMCC Earth System Model. Research Papers Issue RP0248, 2014.
 - **Iovino, D.**, M. Vancoppenolle, T. Fichefet: Implementation of LIM sea ice model in the CMCC global ocean high-resolution configuration. Research Papers Issue RP0209, 2013.
 - **Iovino, D.** and T. Eldevik: Fundamental aspects of the thermohaline gyre circulation in an idealized North Atlantic Ocean. In *On the Nordic Seas role in the Atlantic Meridional Overturning Circulation*, D. Iovino, Ph.D. Thesis published by Bergen Open Research Archive, 2007.
 - Eldevik, T., J.E.Ø. Nilsen, **D. Iovino**, K.A. Olsson, and A.B. Sandø, 2007: The Greenland Sea does not control the overflows feeding the Atlantic conveyor. In *On the Nordic Seas role in the Atlantic Meridional Overturning Circulation*, D. Iovino, Ph.D. Thesis published by Bergen Open Research Archive, 2007.
 - Bray, A.P., F. Geyer, J. Hazewinkel, C. Hopland, **D. Iovino**, N. Kaland, A.H. Larsen, K.S. Sponheim, M.J. Stott: Measurements in Sognefjorden Spring 2004. Scientific report, 2004.

COMMUNICATIONS (MOST RELEVANT SINCE 2010)

- 2020 *Impact of model resolution on North Atlantic heat transport and Arctic sea ice*. Ocean Science Meeting, San Diego, US.
- 2019 *Global Ocean Dynamics in eddying-regime*. World ocean circulation user consultation 2019. Frascati, Italy.
Resolving mesoscale dynamics in a global ocean. Sources and sinks of ocean mesoscale eddy energy workshop. Tallahassee, Florida, US.
Global eddying ocean forced by JRA55-do. DRAKKAR Annual Workshop, Grenoble, France.
- 2018 *Arctic and Antarctic Sea Ice in Ten Ocean Reanalyses*. Polar 2018. Davos, Switzerland
Antarctic Sea Ice Response to Climate Changes in a Model Study. Polar 2018. Davos, Switzerland
GOFSS16: a Global Ocean Forecast System at eddying resolution. Geophysical Research Abstracts, Vol. 20. EGU General Assembly, Wien, Austria.
Polar Ocean Reanalyses Intercomparison Project. Evaluation of Ocean Syntheses meeting, COST Action ES1402, Malta.
Global Ocean Forecasting System at eddying resolution for ocean forecasting and coastal. High Latitudes Research Meeting. CNME, La Spezia, Italy.
Modeling the zoo of physical ocean processes. ERA4C summer school - Climate Services from the users perspective. CNR, Pisa, Italy.
Observed and modelled sea ice variability. ERA4C summer school - Climate Services from the users perspective. CNR, Pisa, Italy.
Resolving Mesoscale Dynamics in Global Ocean. AGU Fall Meeting. Washington DC, US.
- 2017 *CMCC Global Eddying sea-ice–ocean system*. The 7th China-Italy Collaboration Workshop on Operational Oceanography and Regional Climate Change. Rome, Italy.

- 2016 *Climatically-driven changes of Antarctic Sea Ice*. AGU Fall Meeting. San Francisco (CA), USA.
CMCC Global Ocean-Sea Ice System for Reanalysis and Forecasting Applications. CMCC-JAMSTEC symposium: Workshop for modeling and prediction of climate variability and change and its social applications. Aizu, Japan.
Methods of calculation of the Atlantic meridional transports at 26.5°N from ocean models. Geophysical Research Abstracts, Vol. 18. EGU General Assembly, Wien, Austria.
A 1/16° eddy simulation of the global ocean/sea ice system. Geophysical Research Abstracts, Vol. 18. EGU General Assembly, Wien, Austria.
A 1/16° eddy simulation of the global ocean/sea ice system. Workshop on high-resolution ocean modelling for coupled seamless predictions. Exeter, UK.
The CMCC ocean reanalysis in polar regions. Polar Ocean Reanalysis Intercomparison. Helsinki, Finland.
- 2015 *The CMCC global eddy ocean*. CMCC-JAMSTEC symposium on predictability and applicability of climate variations and change. Bologna, Italy.
A comparison of LIM2 and LIM3 between two NEMOv3.4 simulations in the ORCA025 grid. DRAKKAR/MYOCEAN 2015 Annual Workshop, Grenoble, France.
- 2014 *Smelting og ferskvann svekker ikke nødvendigvis Atlanterhavsstrømmen*. Norwegian Geophysical Society symposium, Oslo, Norway.
What's new in NEMO's use and development for the CMCC. NEMO Users meeting 2014, Grenoble, France.
Modeling the sea ice-ocean system at eddy-resolving resolution. CMCC Annual Meeting, Ugento, Italy.
Denmark Strait circulation scheme in an eddy-resolving model. CMCC Annual Meeting, Ugento, Italy.
Climatically driven changes of Antarctic sea ice and their role in the climate system. ESF exploratory workshop - oceanic heat transport to floating glaciers in Antarctica, Lercici, Italy.
Ocean Modeling at CMCC. CLIVAR WGOMD Workshop on High Ocean Climate Modeling, Kiel, Germany.
Denmark Strait overflow in an eddy-resolving model. CLIVAR WGOMD Workshop on High Ocean Climate Modeling, Kiel, Germany.
Denmark Strait Circulation Scheme in an eddy-resolving model. Ocean Science Meeting, Honolulu, Hawaii, USA.
- 2013 *On the sensitivity of modeled sea ice*. CMCC Annual Meeting, Ugento, Italy.
- 2012 *Dynamics of the Norwegian Atlantic Current from high-resolution modeling and observations*. 16th AOMIP workshop, Woods Hole Oceanographic Institution, Woods Hole, MA, USA.
The role of the mesoscale dynamics in the transformation of Atlantic water within the Nordic Seas. The Bjerknes Center's 10th Anniversary Conference: Climate change in high latitudes, Bergen, Norway.

Dynamics of the Norwegian Atlantic Current from high-resolution modeling and observations. The Bjerknes Center's 10th Anniversary Conference: Climate change in high latitudes, Bergen, Norway.

Impact of the Nordic Seas mesoscale dynamics on the exchanges over the Greenland Scotland Ridge to the Atlantic MOC. IPY 2012, Montreal, Canada.

2011 *Impact of ice-ocean model resolution in the Nordic Seas on the simulated exchanges over the Greenland-Scotland sills.* THOR annual meeting, Bergen, Norway.

Variability of ocean convection in the Nordic Seas during the last two decades: sensitivity to model resolution and parameterization. 15th AOMIP workshop, Woods Hole Oceanographic Institution, Woods Hole, MA, USA.

Large-scale impacts of sub-mesoscale dynamics on phytoplankton. Local and remote effects. EGU General Assembly, Wien, Austria.

2010 *The influence of the Arctic Ocean fresh water content on the fresh water outflow to the Atlantic MOC.* THOR annual meeting, Copenhagen, Denmark.

Observed Sources and Variability of Nordic Seas overflow. IPY Oslo Science Conference, Oslo, Norway.

Impact of sub-mesoscale dynamics on biogeochemical budgets in an idealized North Atlantic Ocean. Ocean Sciences Meeting 2010, Portland, OR, USA.

AWARDS

Best Abstract: 5th Annual Conference of the Italian Society for Climate Sciences (SISC), Bologna, Italy, 2017

Best Poster: CMCC Annual Meeting, Ugento, Italy, June 2014.

WORKSHOPS AND SCHOOLS

- 2019
 - Drakkar 2019 annual workshop. Grenoble, France
 - Sources and sinks of ocean mesoscale eddy energy workshop. Tallahassee, Florida, US.
- 2017
 - Artico - Ultima frontiera. Summit on Climate Change. Venice, Italy.
 - NEMO in CMIP6 workshop. Grenoble, France.
- 2016
 - NEMO in CMIP6 workshop. Grenoble, France.
 - Drakkar/ 2016 annual workshop. Grenoble, France.
- 2015
 - School on Ocean Climate Modelling: Physical and Biogeochemical Dynamics of Semi-enclosed seas. METU, Ankara, Turkey.
 - Copernicus Marine Environment Monitoring Service (CMEMS) Workshop. Brussels, Belgium.
 - Workshop on “Southern Ocean and sea ice in a warming world” and “Antarctic ice sheet and sea level”, Conferenza nazionale sulla ricerca in Antartide, Rome, Italy.

- Drakkar/MyOcean 2015 annual workshop. Grenoble, France.
- 2014 ○ ESF Exploratory Workshop - Oceanic Heat Transport To Floating Glaciers In Antarctica. Lerici, Italy.
- CLIVAR WGOMD Workshop on High Ocean Climate Modeling, Kiel, Germany.
- 2013 ○ International Workshop on The Climate Challenge in the Arctic. ICCG, Island of San Giorgio Maggiore, Venice, Italy.
- Drakkar/MyOcean 2013 annual workshop. Grenoble, France.
- 2012 ○ Agrif developers training, Grenoble, France.
- Drakkar/MyOcean 2012 annual workshop. Grenoble, France.
- 2011 ○ School of parallel computing. CINECA, Bologna, Italy.
- Drakkar/MyOceanWP3 annual workshop. Grenoble, France.
- 2010 ○ 14th AOMIP workshop, Woods Hole Oceanographic Institution, Woods Hole, MA, USA.
- 2008 ○ Nonlinear processes in oceanic and atmospheric flows. Castro Urdiales, Cantabria, Spain.
- 2006 ○ Buoyancy loss in the Nordic Seas: A driver of the Atlantic Conveyor? Bjerknes Centre for Climate Research, Bergen, Norway.
- 2004 ○ The first NZC summer school. Nansen Zhu International Research Centre, Beijing, Center in Beijing, China.
- 2003 ○ Ventilation, pathways and overflows of the Nordic Seas. Geophysical Institute, University of Bergen, Bergen, Norway.
- 2002 ○ El Nino and tropical ocean-atmosphere interactions. ICTP (Abdus Salam International Centre for Theoretical Physics), Trieste, Italy.
- 2000 ○ International summer school on atmospheric and oceanic sciences. University of L'Aquila, Italy.

FIELD WORK

R/V Hakon Mosby cruise, Sognefjord, Norway, February 2004.

PRISMA 2 Project, Adriatic Sea, April 1997.

Several field campaigns in the Gulf of Naples for the Oceanographic Measurements Course (Università degli Studi di Napoli Parthenope).

MISCELLANEOUS

Work experience in scientific vulgarization (climate change, mean state and variability of the ocean, marine ecosystems).

Computer skill

Systems: UNIX, Mac OS-X, Windows.

Programming languages: Fortran 77/90

Scientific software and visualization: Matlab, IDL, Python.

Office software (LaTeX, Office suites) and Web Design (HTML, CSS).

Languages:

Italian: mother tongue

English: proficient user in understanding, speaking and writing

French: intermediate user