euro pass Curriculum Vitae Jenny Pistoia

# PERSONAL INFORMATION

# Jenny Pistoia



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Sex Female | Date of birth 10/08/1983 | Nationality Italian

# **WORK EXPERIENCE**

#### From June 2014-Ongoing

# **Technologist**

INGV Istituto Nazionale Geofisica e Vulcanologia

- Data Assimilation Support
- Ocean Forecasting and Observing Simulation Experiments/Observing System Simulation Experiments(E-AIMS Project)

**Business or sector Operational Oceanography** 

From January 2013- to June 2014

## Post Doc

CMCC, Euro-Mediterranean Centre on Climate Change

- Development of SST Assimilation in the Med MFC system
- Set up Glider assimilation
- TAPAS data assimilation

**Business or sector Operational Oceanography** 

From June 2012- to December 2012

## Post Degree

CMCC, Euro-Mediterranean Centre on Climate Change

- Implementation of automatic data visualization in the framework of TESSA Project,
- ASCAT data download, pre-processing and archiving

**Business or sector Operational Oceanography** 

From August 2011 to December

# Visiting Position

College of Engineering, Mathematics and Physical Sciences, University of Exeter (UK)

Singular Value Decomposition and EOF regularization for SuperEnsemble techniques

Business or sector Oceanography – Mathematics - Statistics

## **EDUCATION AND TRAINING**

# From January 2008 to March 2012

# Doctor of Philosophy, Geophysics

EQF Level 8

Alma Mater Studiorum, Bononia University (Italy)

Curricula Oceanography and Climatology

Thesis: Development of Superensemble Technique for the Mediterranean Forecasting System

- High Resolution Ocean Modelling
- Study on the LIW formation and spreading

From October 2005 to October 2007

# MSc in Physics (address Physics of the Atmosphere and Meteorology)

EQF Level 7

Alma Mater Studiorum, Bononia University (Italy)

Thesis: "Quality check for the Mediterranean Forecasting System" Relator: Prof. Nadia Pinardi

From October 2002 to October 2005

# BSc in Physics of the Atmosphere and Meteorology

EQF Level 6

Alma Mater Studiorum, Bononia University (Italy)

• Thesis "Climate Change and population migration" Relator Prof. Rolando Rizzi

## PERSONAL SKILLS

#### Mother tongue(s)

Italian



#### Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B1	B1	B1	B1	B1
		English Certificate		

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user Common European Framework of Reference for Languages

#### Communication skills

 very good communication skills gained through my experience in the operational group and through collaboration with the other team members

### **Projects**

English

#### Involved in:

(A) MED-MFC Copernicus Service: Implementation of a new Assimilation Scheme based in 3dvar with a more realist definition of the background error covariance matrix, valid for each grid point of the domain and with monthly variability. A calibration of the observational error as been evaluated in order to balance the new Background error covariance matrix. Sensitivity experiments have been carried out in order to understand the right SLA pre-processing with some additional filtering or subsampling techniques.

 E-AIMS (2013-2015) project, WP3.3 Task Manager OSE/OSSE in Mediterranean Sea and WP 6.2 participant member

The overall objective of the project is to improve the European contribution to the international Argo observing system and to prepare the next scientific and operational challenges for in-situ monitoring of the world ocean. The main objective is to prepare the evolutions of Argo floats for the next decade: improved reliability and life time, telecommunication capabilities, biogeochemical observations, deeper measurements, under ice operations in the polar seas, sampling of marginal seas. All these evolutions are essential to improve our knowledge on the role of ocean on climate and for operational oceanography (GMES Marine Service) and its applications

• The MyOcean (2009-2012), MyOcean2 (2012-2014) and MyOcean follow-on (October 2014-March 2015) projects, respectively funded by the EU's Seventh Framework Programme for Research (FP7 2007-2013) and HORIZON 2020 (EU Research and Innovation programme 2014-2020) have been designed to prepare and to lead the demonstration phases of the future Copernicus Marine Environment Monitoring Service. The latter is meant to be full operational from 2015 onwards.

# (D) NEXTDATA

- The Project of Interest NextData will favour the implementation of measurement networks in remote mountain and marine areas and will develop efficient web portals to access meteoclimatic and atmospheric composition data, past climate information from ice and sediment cores, biodiversity and ecosystem data, measurements of the hydrological cycle, marine reanalyses and climate projections at global and regional scale. New data on the present and past climatic variability and future climate projections in the Alps, the Himalaya-Karakoram, the Mediterranean region and other areas of interest will be obtained and made available.
- TESSA: Development of technologies for the "Situational Sea Awareness" (2012-2015)
  Project funded under the Ministry of Education funds. Objective: The general objective of this project is to improve and consolidate the products and the operational oceanography service
- MEMA12: morphobathymetric, geophysical, geological and oceanographical investigations in the southern Adriatic Sea coordinated by ISMAR-CNR

# Computer skills

- Very good Knowledge of Microsoft Office<sup>™</sup> tools
- Operating System: Linux, Unix and Windows
- Programming languages: Good Fortran 77/90
- Good C++(programming experience and university exam)
- Good Java (programming experience and university exam)
- Basic Python, R
- Very good Matlab
- Good NCL programming
- File transfer protocol: SCP SSH FTP SCFTP
- Bash script programming



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#### Other skills

I have always been able to achieve my goals, no matter the initial background.

Even if I didn't have enough previous knowledge I was able to complete the degree in the ideal term lasting.

I'm very a very flexible scientist, moving my interests from statistical and Numerical study to Data assimilation scheme and OSE/OSSE.

# **Driving licence**

B

#### ADDITIONAL INFORMATION

#### **Publications**

- J.Pistoia, P.Oddo, N.Pinardi, M. Collins, G. Korres, Y. Drillet, "Development of Super-Ensemble techniques for ocean analyses: the Mediterranean Sea case" in preparation
- Ali Aydoğdu, Pinardi, Pistoia, Martinelli, Belardinelli, Sparnocchia "Assimilation Experiments for the Fishery Observing System in the Adriatic Sea" Journal of Marine Systems submitted
- M. Tonani, N. Pinardi, C. Fratianni, J. Pistoia, S. Dobricic, S. Pensieri, M. de Alfonso, K. Nittis: "Forecast and Analysis Assessment through Skill Scores in the Mediterranean Sea" Ocean Science discussion, 4, S29-S36 (2007)
- "Quality control system of the Mediterranean Forecasting System products" Technical Report : Marilisa Trani, Marina Tonani, Alessandro Grandi, Jenny Pistoia, Paolo Oddo, Giacomo Girardi Feruzza and Massimiliano Drudi (2014)

#### **Presentations**

- An improved data assimilation scheme for the Mediterranean Forecasting system (accepted) DA-TT workshop UK MetOffice Reading 20-22 May 2015
- ARGO observing system evaluation in the Mediterranean Sea with OSE/OSSE OSEval-TT / GSOP-CLIVAR Workshop (CLS, Toulouse, 10-11 December 2014)
- Variational Ocean Data Assimilation for the Mediterranean Forecasting System, SIMAI Conference (7-10 July 2014 Taormina,IT)
- EGU General Assembly 2014, Talk(co-author) The Mediterranean Forecasting System: recent developments (2014)
- MyOcean WP9 Med workshop March 7th 2012 Athens(Greece) (Research and Development): Talk "Superensemble forecast system"
- MyOcean WP9 MED-MFC & MOON MNG Meeting, Rome (IT), 28-30 September 2010, Talk "Medcurrents R&D (Research and Development): Superensemble forecast system"
- Ocean Sciences Meeting; Portland (OR); 22-26 February 2010 Talk: "Krishnamurti's approach in BHM simulations".

#### Posters

- GODAE OceanView symposium Baltimore, 4-6 November 2013, poster(co-author) The evolution of the regional forecasting systems of the Mediterranean Sea during the 20th century

#### Post degree Schools

- 2015 Copernicus Users Information Day, Access to Marine Data Stream from EUMETSAT".
  11/09/2015 EUMETSAT Headquarters Darmstadt. (D)
- 2014: Data assimilation and visualization course, 15-19 September, Reading (UK),
- 2013: Advanced School on Data Assimilation, 24-28 June, Bologna(IT)
- 2011:AMS American Mathematical Society "Von Neumann Symposium" 4-7 July, Snowbird (UT)
- September-December 2009, Bayesian inference Statistics (statistic science faculty) alma mater studiorum
- May 2008 Introduction to Paralleling Computer with MPI and OpenMP CINECA Bologna

#### Ocean Cruise

MEMA12 (20/04/2012 al 02/05/2012), Southern Adriatic, Leader Foglini