Irene Pérez González

Date of birth: 05/03/1981 | **Nationality:** Spanish | (+49) 04031900 | perezgonzalez.irene@gmail.com |

Bernhard-Nocht-Straße 78, 20359, Hamburg, Germany

WORK EXPERIENCE

01/09/2020 – CURRENT – Hamburg, Germany
DATA MANAGER AND OPERATIONS AT COPERNICUS MARINE SERVICE (NWS INSTAC) – FEDERAL MARITIME AND HYDROGRAPHIC AGENCY (BSH)

31/08/2018 – 31/07/2020
MARINE METEOROLOGIST – NATIONAL OCEANOGRAPHY CENTRE

In the framework of the marine in-situ component of the of the Copernicus Climate Change Service (C3S) Climate Data Store:
- Develop tools to read and decode marine meteorological reports from different data models and map them into a common data model.
- Design and implement a data flow to integrate the different processing steps that generate an improved version of the initial data: report linkage, duplicate identification, quality control and collation with additional external metadata.
- Design and implement the scripts and monitoring methods to process the service's data releases in the Centre for Environmental Data Analysis (CEDA) JASMIN scientific servers and LOTUS cluster.
- Design and implement tools to assess data quality and to describe the content of the data releases in user manuals.
- Document methods in internal reports and technical service documents and present these and their results in project meetings.

Southampton, United Kingdom

01/04/2016 – 31/12/2017
HEAD OF DIVISION ASSOCIATED TO PROJECT SOPRANO – SPANISH PORTS AND HARBOURS AUTHORITY (PUERTOS DEL ESTADO)

- Development of a new sea level forecast operative based on multi-model techniques in the IBI domain (Iberia-Biscay-Ireland):
  - Design and implementation of an operational system to integrate CMEMS in-situ observations in Puertos del Estado data base: acquisition, quality control, post-processing and monitoring.
  - Design and implementation of an operational system to integrate operational forecasts in Puertos del Estado data base: acquisition, pre-processing, post-processing and monitoring. Application to CMEMS regional systems and Puertos del Estado Nivmar-HAMSOM system.
  - Set up of the statistical multi-model based forecast system.
  - Validation and inter-comparison of the dynamic and statistical forecasts.
  - Dissemination of new operative and preliminar results in national and international meetings.
- Design and implementation of a pilot extreme event-ready sea level station:
  - Contact with and national and international sea level network operators to study already existing solutions.
  - Final design of station and data flow based on GLOSS (Global Sea Level Observing System) recommentations and technical-economical feasibility.
  - Selection of providers.
  - Station deployment supervision.
  - Set-up of station data integration in Puertos del Estado.
  - Follow-up and validation of data generated by the new station.

Madrid

13/07/2015 – 13/11/2015

WMO EXTERNAL CONSULTANT FOR PROJECT MARINEMET – WORLD METEOROLOGICAL ORGANIZATION

- Development of operative software tools to:
  - Quality control observational network meteorological and oceanographic parameters.
  - Validate decodification of observational network satellite frames.
  - Verify storage of network data at different end points of the data flow.
- Activation of real time quality control procedures on network data.
- Tunning of existing tools to forward real time sea level data to the IOC-SLSMF (Sea Level Station Monitoring Facility).
- Follow up of real time transmission of network data to nominal end points.
- Evaluation of tide gauge stations sea level station datum.
- Generation sea level products at tide gauge stations.

08/07/2013 – 31/12/2014

SEA LEVEL EXTERNAL CONSULTANT AT SPANISH PORTS AND HARBOURS AUTHORITY (PUERTOS DEL ESTADO) – SIDMAR ESTUDIOS OCEANOGRÁFICOS

- Adaptation and development of operative SW to process and issue automatic reports on historical sea level series of the Spanish Sea Level Network (REDMAR).
- Design and development of operative SW tools for the reception, preliminar quality control, storage and follow up of real time storage of high frequency sea level data (2Hz) of REDMAR.
- Design and operative implementation of algorithms for the near real time quality control of agitation parameters from REDMAR network.
- Delayed mode quality control of REDMAR sea level series.

Madrid, Spain

01/09/2008 – 31/10/2012

EXTERNAL CONSULTANT AT THE REMOTE SENSING AREA OF THE NATIONAL INSTITUTE OF AEROSPACE TECHNIQUE – SERCO GESTIÓN DE NEGOCIOS / SELF EMPLOYED

- Maintenance and improvement of airborne hyperspectral imagery (AHS and CASI-1500i) processing SW.
- Definition, implementation and validation of algorithms for radiometric and spectral calibration of airborne hyperspectral imagery.
- Design and implementation of quality control algorithms of airborne hyperspectral imagery (AHS and CASI-1500i).
- Process of high resolution airborne hyperspetral data (AHS and CASI-1500i) to generate oceanographic products (chlorophyl, sea surface temperature and cloud masks): radiometric calibration, orthorectification and atmospheric correction.
- Oceanographic products generation from satellite (AVHRR and MODIS) and airborne (AHS and CASI-1500i) imagery.
- Technical reports and scientific publications.

Torrejón de Ardoz, Spain

01/03/2008 – 30/06/2008

DATA ANALYST AT THE QUANTITATIVE ANALYSIS DEPARTMENT – HIDROCANTÁBRICO ENERGÍA

Development of operative tools to generate automatic reports on energy generation based on Excel VBA.

Madrid, Spain

01/12/2005 – 28/02/2008

RESEARCH TECHNICAL SUPPORT SCHOLAR AT THE DEPARTMENT OF PHYSICS – UNIVERSIDAD DE ALCALÁ

Development of SW for the statistical analysis of climatological data:
- Typical frequencies in geophysical fields.
- Trends in climatological series.
- Filtering.
- Seasonal anomalies.
- Dimensionality reduction.
- Linear and non linear covariability modes among fields.

Application of analysis tools to sea level pressure and sea level temperature fields to diagnose El Niño-Southern Oscillation (ENSO) footprint on the North Atlantic winter atmospheric circulation.

Alcalá de Henares, Spain

01/09/2006 – 30/06/2007
TEACHING SUPPORT SCHOLAR AT THE DEPARTMENT OF PHYSICS – UNIVERSIDAD DE ALCALÁ

Support in Physical Fundamentals of Architecture lectures.

- **EDUCATION AND TRAINING**

01/09/2007 – 30/06/2008
POST GRADUATE CERTIFICATE IN EDUCATION (AREA: MATHEMATICS) – Universidad Complutense de Madrid

01/12/2005 – 30/06/2007 – Alcalá de Henares, Spain
POST GRADUATE DIPLOMA IN CLIMATOLOGY – Universidad de Alcalá

Thesis title: Climate System Interactions: Non-linear anlysis of the El Niño Southern Oscillation (ENSO)-North Atlantic Interaction

EQF level 7

01/09/1999 – 31/12/2004 – Las Palmas de Gran Canaria, Spain
UNIVERSITY DEGREE IN MARINE SCIENCES – Universidad de Las Palmas de Gran Canaria

Subjects covered:
- Physical Oceanography
- Oceanographic Chemistry
- Oceanographic Biology
- Geology
- Applied Mathematics
- Coastal Management

EQF level 6

LANGUAGE SKILLS

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
FRENCH	A1	A2	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Publications

Karina von Schuckmann et al (2018) *The Copernicus Marine Environment Monitoring Service Ocean State Report*, Issue 2, Journal of Operational Oceanography, 11:sup1, s1-s142, DOI: 10.1080/1755876X.2018.1489208
Karina von Schuckmann et al (2017) *The Copernicus Marine Environment Monitoring Service Ocean State Report*, Journal of Operational Oceanography, 9:sup2, s235-s320, DOI: 10.1080/1755876X.2016.1273446
OrtizBeviá, M. J., I. Pérez-González, F. J. Alvarez-García, and A. Gershunov (2010). *Nonlinear estimation of El Niño impact on the North Atlantic winter.* J. Geophys. Res., 115, D21123, doi:10.1029/2009JD013387.

COMMUNICATION TO CONGRESSES

Communication to congresses

- Pérez-González I., Pérez-Gómez B., Álvarez Fanjul E. and García Sotillo M (2017). *TOWARDS A NEW SEA LEVEL FORECAST SYSTEM IN PUERTOS DEL ESTADO.* Proceedings of the Eigth EuroGOOS International Conference, 3-5 October 2017, Bergen, Norway.
- I. Pérez -González, E. de Miguel, M. Bruno, C. M. García, A. Ruiz-Verdú, C. Robles-González, O. Gutiérrez de la Cámara (2009). Marine mesoscale structures detection with AHS in the Gibraltar Strait *(Detección de estrucutras marinas mesoescalares mediante el sistema AHS-INTA en el Estrecho de Gibraltar)*. XIII Congreso Nacional de la Asociación Española de Teledetección. Calatayud (Zaragoza). 23-26 September 2009.
- PérezGonzález I., ÁlvarezGarcía F., CabosNarvaez W., OrtizBeviá M.J. (2006). ENSO types teleconnections wtih the Southern Hemisphere with simulations of IPCC coupled models *(Teleconexiones con el Hemisferio Sur de tipos de ENSO en simulaciones de modelos acoplados del IPCC).* 5º Congreso de la Asociación Española de Climatología. Zaragoza. 18-21 September 2006.
- Cabos Narváez, W., PérezGonzález I., ÁlvarezGarcía F., OrtizBeviá M.J. (2006). ENSO modes in the hadcm3 coupled model in climate change conditions *(Modos ENSO en el modelo acoplado hadcm3 en condiciones de cambio climático).* 5º Congreso de la Asociación Española de Climatología. Zaragoza. 18-21 September 2006.
- PérezGonzález I., CabosNarvaez W., ÁlvarezGarcía F., OrtizBeviá M.J. (2006). Teleconnections and ENSO types in IPCC simulations *(Teleconexiones y tipos de ENSO en simulaciones del IPCC)*. 5ª Asamblea Hispano-Portuguesa de Geodesia y Geofísica. Sevilla. 30-January/ 02-February 2006.

TECHNICAL DOCUMENTATION

Technical documentation

- Sentinel-3 Experimental Campaign Final Report (2011). ESA Contract No. 22661/09/I-LG
- Bachmann, M., Adar, S., Ben-Dor, E., Biesemans, J., Briottet, X., Grant, M., Hanus, J., Holzwarth, S., Hueni, A., Kneubuehler, M., Meuleman, K., de Miguel, E., Perez Gonzalez, I., Reusen, I., Richter, R., Ruhtz, T., Schaele, M., Weide, S. (2011). *Eufar FP/ HyQuaPro (JRA-2) Report on Quality Layers from VITO, DLR, INTA and PML.* doi: 10.5167/uzh-77317

COURSES

Courses

- *Curso de Meteorología Operativa 2008, 1ª Edición* (Course on Operational Meteorology, 1st Edition). Escuela Complutense de Verano. Universidad Complutense de Madrid and Agencia Estatal de Meteorología. Madrid, Spain. July 2008 (100 hours)
- *Climate Change Impacts on Marine Ecosystems*. OTAN - Middle East Technical University. Ankara. Turkey (14-26 August 2006).
- Access 2000/2003. Curso de Extensión Universitaria 2004 (15 hours). Universidad de Las Palmas de Gran Canaria, Spain.
- *Análisis de Datos con Excel* (Data Analysis with Excel). Curso de Extensión Universitaria 2004 (15 hours). Universidad de Las Palmas de Gran Canaria, Spain.
- *Teledetección Aplicada* (Applied Remote Sensing). Curso de Extensión Universitaria 2003 (20 hours).Universidad de Las Palmas de Gran Canaria, Spain.