

Ministerio de Economía y Competitividad. Secretaría de Estado de Investigación, Desarrollo e Innovación

# **Curriculum Vitae**

Full name: IÑIGO GÓMARA CARDALLIAGUET

Date: December 5, 2016

Personal Background Information					
Family Name: Gómara Cardalliaguet	First Name: Iñigo	Date: December 5, 2016			
	Date of Birth: 17/03/1985	Gender: Male			
Current professional position					
Institution/Organisation: Universidad C Faculty: Physical Sciences Department.: Geophysics and Meteorole Address: Ciudad Universitaria, s/n, 2804 Telephone number: +34 913944513 Email: i.gomara@ucm.es Specialisation (UNESCO Codes): 2501 Professional Category: Postdoctoral re	.03; 2501.06; 2502.06; 2501.21, 2502				

# **Research Lines**

Climate variability. Extratropical cyclones. Extreme events. Dynamical Meteorology. Statistical and dynamical downscaling.

Academic Data			
Degree	University	Date	
Degree in Physics	University of Salamanca	June 2009	
Advanced Studies Diploma	University of Salamanca	March 2010	
Masters Degree in Geophysics and Meteorology	Complutense University of Madrid	October 2010	
PhD in Physics	Complutense University of Madrid	November 2015	

# Former professional or scientific activities

Position	Institution	Dates
Erasmus grant holder	University of Bristol. School of Physics	September 2007 - June 2008
Collaboration Grant from the Ministry of Education and Sciences. Government of Spain.	Department of Atmospheric Physics. University of Salamanca	November 2008 - July 2009
Grant holder of the Welfare projects "la Caixa" for Master studies.	Department of Geophysics and Meteorology. Complutense University of Madrid.	September 2009 - September 2010
Pre-doctoral researcher under contract	Tropical Atlantic Variability Group (UCM)	April 2011 - June 2011
Pre-doctoral researcher under contract	Pablo Zurita's research group (UCM)	July 2011-December 2012
Pre-doctoral researcher under contract	Tropical Atlantic Variability Group (UCM)	July 2013-November 2015

Post-doctoral	researcher	under	Tropical Atlantic Variability Group (UCM)	May 2016-December
contract				2016

# FOREIGN LANGUAGES SKILLS (A1 = elementary, A2 = basic, B1 =intermediate, B2 =upper intermediate, C1 = advanced, C2 = proficiency)

Language	Language Speaking		Writing	
English	C1	C1	C1	
TOEFL iBT: 99/120				
Се	Certificate in Advanced English (ESOL). University of Cambridge			
	Advanced English Language Studies. University of Bristol			
Official School of Languages (Spain): Certificate in Advanced English level				
French	B1	B1	B1	
Official School of Languages (Spain): Certificate in Intermediate French level				

# STAYS IN FOREIGN CENTRES

(Key: D = doctoral, P = postdoctoral, I = invited, C = under contract, O = others.)

Department of Meteorology (L	Iniversity of Reading)	Key: D		
City: Reading	Country: UK	Date: November 10, 2012	Duration: 2 weeks	
Subject: Large-scale dynamics associated with clustering of extra-tropical cyclones affecting Western Europe Funding by: University of Reading				
runung by. Onversity of Read	ung			

stitute for Geophysics and Meteorology (University of Cologne)			Key: D	
City: Cologne	Country: Germany	Date: October 1, 201	2 Duration: 11 weeks	
Subject: Dynamical analysis of e statistical downscaling of associa Funding by: STSM COST Actio	ted wind signatures.	stern Europe and implica	itions for the dynamical and	

nstitute for Geophysics and Meteorology (University of Cologne)		Key: D		
City: Cologne	Country: Germany	Date: June 23, 2012	Duration: 3 weeks	
Subject: Rossby Wave-Breaking analysis of Explosive cyclones in the Euro-Atlantic sector.				
Funding by: University of Cologne				

# Participation in R&D projects

(national and/or international, last five years)

Title of project: **PREFACE – Enhancing prediction of Tropical Atlantic climate and its impacts** (ref. 603521) Funded by: European Commission's Seventh Framework Programme Duration, from: 2013 up to: 2017 Responsible Researcher: Noel Keenlyside (UiB)

Title of project: **Multiscale climate variability: Agricultural and economic impacts** CGL2012-38923-C02-01 Funded by: Spanish Ministry of economy and competitiveness Duration, from: 2012 up to: 2015 Responsible Researcher: Belén Rodríguez-Fonseca

Title of project: Resources update of the Physics laboratory Simeon Fongang (Atmosphere and ocean) at UCAD – Senegal.

Funded by: Complutense University of Madrid Duration, from: 2012 up to: 2013 Responsible Researcher: Elsa Mohino Harris.

Title of project: **Virtual Laboratory of Meteorology and Climate**: Project of innovation in teaching quality. Funded by: Complutense University of Madrid Duration, from: 2011 up to: 2012 Responsible Researcher: Belén Rodríguez-Fonseca

Title of project: Equilibrium Dynamics and Annular Internal Variability of the Extratropical Jet CGL2009-06944 Funded by: Spanish Ministry of Education and Science Duration, from: 2009 up to: 2012

Responsible Researcher: Pablo Zurita Gotor

Title of project: **Tropical Atlantic Variability and the Climate Shift** CGL2009-10285 Funded by: Spanish Ministry of Education and Science Duration, from: 2009 up to: 2012 Responsible Researcher: Belén Rodríguez-Fonseca

Title of project: **Micrometeorology and Climate Variability** Funded by: Complutense University of Madrid and Bank Santander Duration, from: 2009 up to: 2011 Responsible Researcher: Carlos Yagüe Anguís

## Scientific-Technical Publications (last five years)

(Key: L = Complete book, CL = Chapter in a book, A = article, R = "review", E = editor, S = Restricted Scientific-Technical Document.)

#### JCR

Belén Rodríguez-Fonseca, Roberto Suárez-Moreno, Blanca Ayarzagüena, Jorge López-Parages, **Iñigo Gómara**, Julián Villamayor, Elsa Mohino, Teresa Losada, Antonio Castaño-Tierno (2016) A Review of ENSO Influence on the North Atlantic. A Non-Stationary Signal. Atmosphere, 7, 87, DOI:10.3390/atmos7070087

**Iñigo Gómara**, Belén Rodríguez-Fonseca, Pablo Zurita Gotor, Sven Ulbrich, Joaquim G. Pinto (2016) Abrupt transitions in NAO control of explosive North Atlantic cyclone development, Clim. Dyn., 47, 3091-3111, DOI 10.1007/s00382-016-3015-9

Carlos Román Cascón, Carlos Yagüe, Samuel Viana, Mariano Sastre, Gregorio Maqueda, Marie Lothon, and **Iñigo Gómara** (2015) Near monochromatic ducted Gravity Waves associated with a convective system close to the Pyrenees. Q. J. R. Meteorol. Soc., 141, 1320-1332, DOI: 10.1002/qj.2441

Joaquim G. Pinto, **Iñigo Gómara**, Giacomo Masato, Helen F. Dacre, Tim Woollings, and Rodrigo Caballero (2014) Large-scale dynamics associated with clustering of extra-tropical cyclones affecting Western Europe. J. Geophys. Res. Atmos., 119, 13704–13719, DOI: 10.1002/2014JD022305

**Iñigo Gómara**, Belén Rodríguez Fonseca, Pablo Zurita Gotor, and Joaquim G. Pinto (2014) On the relation between explosive cyclones affecting Europe and the North Atlantic Oscillation. Geophys. Res. Lett., 41, 2182–2190, doi: 10.1002/2014GL059647

**Iñigo Gómara,** Joaquim G. Pinto, Tim Woollings, Giacomo Masato, Pablo Zurita Gotor, and Belén Rodríguez Fonseca (2014) Rossby wave-breaking analysis of explosive cyclones in the Euro-Atlantic sector. Q. J. R. Meteorol. Soc. 140: 738–753, DOI:10.1002/qj.2190

#### Other contributions

Belén Rodríguez Fonseca, **Iñigo Gómara**, and Jorge López Parages (2014) Sobre el clima en el Atlántico Norte y su variabilidad. madrid+d (http://www.madrimasd.org/informacionIdi/analisis/analisis/analisis/analisis.asp?id=60730)

Jorge López Parages, Julián Villamayor, **Iñigo Gómara**, Teresa Losada, Marta Martín Rey, Elsa Mohino, Irene Polo, Belén Rodríguez Fonseca, and Roberto Suárez (2013). Nonstationary interannual teleconnections modulated by multidecadal variability. Física de la Tierra, 25, 11-39.

**Iñigo Gómara**, Belén Rodríguez Fonseca, and Pablo Zurita Gotor (2012) Explosive cyclones in the North Atlantic: NAO influence and multidecadal variability. Spanish Association of Climatology Publications A-series, n.8. ISSN 978-84-695-4331-3

**Iñigo Gómara**, Carlos Yagüe, Belén Rodríguez Fonseca, and Concepción Rodríguez Puebla (2010). Study of extratropical cyclone Klaus: Possible connections with the NAO. Meteorology and Renewable energies. Spanish Meteorological Society. ISSN: 978 – 84 – 613 -9596 – 5

**Gómara, I.**, Mohino E., Losada T., Domínguez M., Rodríguez-Fonseca B. 2016: Impact of dynamical regionalization on precipitation biases and teleconnections of the West African Monsoon. Oral presentation at the CLIVAR-PIRATA-PREFACE tropical atlantic variability conference 27 November – 1 December 2016, Paris, France.

**Gómara, I.,** Rodríguez-Fonseca B., Zurita-Gotor, P., Pinto, J.G. 2015: On the relation between explosive cyclones affecting Europe and the North Atlantic Oscillation. Oral presentation at the International Symposium CLIMATE-ES 2015. Tortosa, Spain, March 11 - 13, 2015.

**Gómara, I.,** Rodríguez-Fonseca B., Zurita-Gotor, P., Pinto, J.G. 2014: On the relation between explosive cyclones affecting Europe and the North Atlantic Oscillation. Oral presentation at the STORMEx 4th European storms workshop - 8-10 Sep 2014 IPMA, Lisbon, Portugal

**Gómara, I.,** Pinto, J.G., Woollings, T., Masato, G., Zurita-Gotor, P., Rodríguez-Fonseca, B., 2014: Rossby Wave-Breaking analysis of Explosive cyclones in the Euro-Atlantic sector. Poster presentation at the STORMEx 4th European storms workshop - 8-10 Sep 2014 IPMA, Lisbon, Portugal

**Gómara, I.,** Rodríguez-Fonseca B., Zurita-Gotor, P., Pinto, J.G. 2014: On the relation between explosive cyclones affecting Europe and the North Atlantic Oscillation. Oral presentation at the Spanish Meteorological Society Meeting 2014. Oviedo, Spain, March 7 - 9, 2014.

**Gómara, I.,** Pinto, J.G., Woollings, T., Masato, G., Zurita-Gotor, P., Rodríguez-Fonseca, B., 2013: Rossby Wave-Breaking analysis of Explosive cyclones in the Euro-Atlantic sector. Poster presentation at EGU General Assembly 2013. Vienna, Austria, April 7 - 12, 2013.

**Gómara, I.**, B. Rodríguez-Fonseca and P. Zurita-Gotor, 2012: Explosive cyclones in the North Atlantic: NAO influence and multidecadal variability. Oral presentation at the 8th International meeting of the Spanish Association of Climatology. Salamanca, Spain. September 25 - 28, 2012.

**Gómara, I.**, B. Rodríguez-Fonseca and P. Zurita-Gotor, 2011: Explosive cyclones over Europe: Influence of the North Atlantic Oscillation in different timescales. Oral presentation at the 11th EMS Annual Meeting/10th ECAM. Berlin, Germany, September 12 - 16, 2011.

**Gómara, I.**, B. Rodríguez-Fonseca, C. Yagüe and C. Rodríguez-Puebla, 2011: Influence of the North Atlantic Oscillation on the properties of explosive cyclones. Oral and poster presentations at the EGU General Assembly 2011. Vienna, Austria, April 3 - 8, 2011.

**Gómara, I.**, C. Rodríguez-Puebla, C. Yagüe and B. Rodríguez-Fonseca, 2010: An analysis of the characteristics of extratropical cyclone Klaus. Poster presentation at the EGU General Assembly 2010. Vienna, Austria, May 2 - 7, 2010.

**Gómara, I.**, C. Rodríguez-Puebla, C. Yagüe and B. Rodríguez-Fonseca, 2010: Study of extratropical cyclone Klaus: Possible connections with the NAO. Oral presentation at the Spanish Meteorological Society Meeting 2010. Seville, Spain, March 1 - 3, 2010.

# Programming skills

- Extended knowledge of Linux and Windows
- Extended knowledge of MATLAB and GrADS
- Basic knowledge of NetCDF
- Notions of R, Fortran and C++

# Training activities, seminars and scientific disclosure

## **Training Schools**

**Title:** The Nansen Tutu Summer School on Ocean, Climate and Marine Ecosystem **Date and location of the event:** University of Cape Town (South Africa). 1-8 December 2014 **Organizing group:** European Project PREFACE **Contribution:** Trainee (full grant awarded for participation).

Title: Second VALUE training school: "Statistical and Dynamical Downscaling of Extreme Events" Date and location of the event: ICTP, Trieste (Italy). 21-31 October 2013 Organizing group: COST ACTION ES1102: VALUE Contribution: Trainee (full grant awarded for participation).

Title: The UCLA ocean-atmosphere coupled model. Description, compilation and running. Dr. Heng Xiao (UCLA). Date and location of the event: Complutense University of Madrid. June 2010. Organizing group: Micrometeorology and Climate variability group. Department of Geophysics and Meteorology. Complutense University of Madrid. Contribution: Participant.

# Seminars

Title: Climate Variability, Climate Services and Big Data Date and location of the event: December 2, 2016. Madrid (Spain). Organizing Group: Bank Santander, HP Enterprise and Universidad Complutense de Madrid. Contribution: Speaker

**Title:** HHH talk: "Rossby wave-breaking analysis of explosive cyclones in the Euro-Atlantic sector". **Date and location of the event:** November 11, 2013. Reading (UK). **Organizing group:** Dynamical Processes Group. Department of Meteorology. University of Reading. **Contribution:** Speaker

Title: Seminar: Explosive cyclones in the North Atlantic: Climatology, variability and dynamical analysis. Date and location of the event: November 23, 2011. Madrid (Spain). Organizing group: Complutense University of Madrid. Contribution: Speaker.

Title: Seminar. Deep convection and Supercells. Date and location of the event: July 3-4, 2010. Valsaín (Spain). Organizing group: Spanish Meteorological Society and AEMET. Contribution: Participant.

# Scientific disclosure

Title: XIV Science Week. Laboratory of Ocean and Atmosphere. Date and location of the event: November 3-16, 2014. Madrid (Spain). Organizing group: Community of Madrid.

Title: XIII Science Week. Laboratory of Ocean and Atmosphere. Date and location of the event: November 4-17, 2013. Madrid (Spain). Organizing group: Community of Madrid. Contribution: Collaborator.

Title: XI Science Week. Laboratory of Ocean and Atmosphere. Date and location of the event: November 7-20, 2011. Madrid (Spain). Organizing group: Community of Madrid. Contribution: Collaborator.

# Research/Congress awards

**Title:** Young Scientist Award **Meeting:** 8th International meeting of the Spanish Association of Climatology. Salamanca, Spain. September 25 - 28, 2012. **Contribution:** Explosive cyclones in the North Atlantic: NAO influence and Multidecadal Variability.