

# **Curriculum Vitae**

**Juan José Gómez Navarro**

Institute of Coastal Research  
Helmholtz-Zentrum Geesthacht



Zentrum für Material- und Küstenforschung

February 2013

## PERSONAL DATA

- **Family and forename:** Gómez Navarro, Juan José
- **Gender:** Male
- **Marital status:** Single
- **Birth:**
  - Place: Albacete (Spain)
  - Date: 12/03/1982
  - Nationality: Spanish
- **Permanent address:**
  - City: Santomera (Murcia)
  - Address: Grupo de Coros y Danzas, 3 Bajo b
  - Zip code: 30140
  - Phone +34 868 810 985

## ACADEMIC BACKGROUND

- PhD. in Science. University of Murcia, 2011
- Master in Quantitative Finance. Analistas Financieros Internacionales (AFI) (Madrid), 2007
- Pre-doctoral courses. Autonomous University of Madrid, 2007
- B. S. degree in Physics. University of Murcia, 2000–2005

## PROFESSIONAL EXPERIENCE

- **Post-doc research contract.** Department of Palaeoclimate, Helmholtz-Zentrum Geesthacht. from **05-2012** until **currently**
- **Post-doc research contract.** Department of Physics of the University of Murcia. from **10-2011** until **04-2011**
- **Pre-doc research contract.** Department of Physics of the University of Murcia. from **09-2007** until **09-2011**
- **Administrative assistant.** Department of Global Risk Management. Cajamurcia. from **07-2008** until **09-2008**

## LANGUAGES

Language	Speaking	Reading	Writing
<b>Spanish</b>	Excelent	Excelent	Excelent
<b>English</b>	Good	Excelent	Excelent
<b>German</b>	Basic	Basic	Basic

## PARTICIPATION IN RESEARCH PROJECTS AND CONTRACTS

- **Title:** *PRecipitation In past Millennia in Europe-extension back to Roman times (PRIME-2K)*  
**Participant institutions:** Helmholtz-Zentrum Geesthacht, Justus-Liebig University  
**Principal Investigator:** Jürg Luterbacher and Eduardo Zorita  
**Funding agency:** DFG-Schwerpunktprogramm INTERDYNAMIK  
**Code:** LK14302KSP5002  
**Amount:** –  
**Number of researchers:** 4  
**Duration** from 2012 until 2014
- **Title:** *Simulation and analysis of key periods of the late Quaternary: advance in the understanding of climate modeling and reconstructions*  
**Participant institutions:** Complutense University of Madrid, University of Murcia  
**Principal Investigator:** Volker Rath  
**Funding agency:** Spanish Ministry of Science and Innovation  
**Code:** CGL2011-29672-C02-01  
**Amount:** 150000 euros  
**Number of researchers:** 10  
**Duration** from January 2011 until December 2014
  - SUBPROJECT:  
**Title:** *Regional simulations*  
**Participant institutions:** University of Murcia  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Code:** CGL2011-29672-C02-02  
**Amount:** 92000 euros  
**Number of researchers:** 5
- **Title:** *Regional ensemble climate simulations over the Iberian Peninsula and impacts on air quality*  
**Participant institutions:** UMU  
**Principal Investigator:** Pedro Jiménez Guerrero  
**Funding agency:** Seneca Foundation  
**Code:** 12033/PI/09  
**Amount:** 34900  
**Number of researchers:** 5  
**Duration** from 1-1-2010 until 31-12-2011
- **Title:** *Simulation and analysis of key periods of the Quaternary: climatic modeling and reconstruction*  
**Participant institutions:** Complutense University of Madrid, University of Murcia  
**Principal Investigator:** Jesús Fidel González Rouco  
**Funding agency:** Spanish Ministry of Science and Innovation  
**Code:** CGL2008-06558-C02-01/CLI  
**Amount:** 80000  
**Number of researchers:** 10  
**Duration** from 2008 until 2011
  - SUBPROJECT:  
**Title:** *Regional integrations*  
**Participant institutions:** University of Murcia

**Principal Investigator:** Juan Pedro Montávez Gómez  
**Code:** CGL2008-06558-C02-02/CLI  
**Amount:** 30000  
**Number of researchers:** 5

- **Title:** *Generation of regional scenarios of climate change in Spain by using high-resolution models (ESCENA)*

**Participant institutions:** UCLM, UMU, UC, USC  
**Principal Investigator:** Manuel Castro Muñoz de Lucas  
**Funding agency:** Spanish Ministry of the Environment  
**Code:** –  
**Amount:** 703.829,60  
**Number of researchers:** 16  
**Duration** from 12-2008 until 12-2011

- **SUBPROJECT:**

**Title:** *Integrations with MM5*  
**Participant institutions:** UM  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Code:** –  
**Amount:** 155.925,60  
**Number of researchers:** 5

- **Title:** *Characterization of the climate of the Iberian Peninsula during the period 1750-1850*

**Participant institutions:** UCM, UMU, UAL, UZA, UEX, PCB, UVI, UPO  
**Principal Investigator:** Ricardo García Herrera  
**Funding agency:** Spanish Ministry of the Environment  
**Code:** –  
**Amount:** 393.072  
**Number of researchers:** 40  
**Duration** from 12-2008 until 12-2011

- **SUBPROJECT:**

**Title:** *Regional Paleosimulations*  
**Participant institutions:** University of Murcia  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Code:** –  
**Amount:** 67.460  
**Number of researchers:** 5

- **Title:** *"Small wind turbines" project: promotion of the small power eolic technology*  
**Participant institutions:** CIEMAT, UM, CENER and a number of companies in this sector  
**Principal Investigator:** Jose Ignacio Cruz Cruz  
**Funding agency:** Spanish Ministry of Education and Science  
**Code:** PSE.120000.2007.14  
**Amount:** 1475983  
**Number of researchers:** 50  
**Duration** from 2007 until 2010

- SUBPROJECT:

**Title:** *Development of a wind map at national level adopted for small wind turbines (EOLMAP)*

**Participant institutions:** University de Murcia, CIEMAT y CENER

**Principal Investigator:** Juan Pedro Montávez

**Code:** PSS-120000-2007-71

**Amount:** 97800

**Number of researchers:** 10

## PUBLICATIONS

### International Journals

#### Submitted papers

- P. Jimenez-Guerrero, J.J. Gómez-Navarro, R. Baró, R. Lorente, N. Ratola, J.P. Montávez: *Is there a common pattern of future gas-phase air pollution in Europe under diverse climate change scenarios?*. Climatic Change, 2012

#### Published papers

- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, E. Zorita: *What is the role of the observational dataset in the validation and scoring of climate models?*. Geophysical Research Letters, **39**, pp L24701, doi:10.1029/2012GL054206, 2012
- J.A. García-Valero, J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, R. Lorente-Plazas, P. Jiménez-Guerrero: *A seasonal study of the atmospheric dynamics over the Iberian Peninsula based on Circulation Types*. Theoretical and Applied Climatology, **110**, pp 291-310, doi:10.1007/s00704-012-0623-0, 2012
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, P. Jiménez-Guerrero, P.A. Jimenez, R. Lorente-Plazas, J.F. González-Rouco: *The role of the land-surface model for climate change projections over the Iberian Peninsula*. Journal of Geophysical Research, **117**, pp D01109, doi:10.1029/2011JD016576, 2012
- P. Jiménez-Guerrero, J.P. Montávez, J.J. Gómez-Navarro, S. Jerez, R. Lorente-Plazas: *Impacts of climate change on gas-phase pollutants and aerosols in the Iberian Peninsula for the late XXI century*. Atmospheric Environment, **55**, pp 483-495, doi:10.1016/j.atmosenv.2012.02.2012
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, R. Lorente-Plazas, J.A. García-Valero, P. Jiménez-Guerrero: *A multi-physics ensemble of regional climate change projections over the Iberian Peninsula*. Climate Dynamics, **XX**, pp YYYY, doi:10.1007/s00382-012-1551-5, 2012
- S. Jerez, J.P. Montávez, P. Jiménez-Guerrero, J.J. Gómez-Navarro, R. Lorente-Plazas, E. Zorita: *A multi-physics ensemble of present-day climate regional simulations over the Iberian Peninsula*. Climate Dynamics, **XX**, pp YYYY, doi:10.1007/s00704-012-0623-0, 2012
- I. Dorado-Liñán, U. Buntgen, J.F. González-Rouco, E. Zorita, J.P. Montávez, J.J. Gómez-Navarro, M. Brunet, I. Heinrich, G. Helle, and E. Gutiérrez: *Estimating 750 years of temperature variations and uncertainties in the Pyrenees by tree-ring reconstructions and*

*climate simulations*. *Climate of the Past*, **8**, pp 919-933, **doi:10.5194/cp-8-919-2012**, 2012

- F.S. Rodrigo, J.J. Gómez-Navarro, J.P. Montávez: *Climate variability in Andalusia (southern Spain) during the period 1701–1850 AD from documentary sources: evaluation and comparison with climate model simulations*. *Climate of the Past*, **8**, pp 117-133, **doi:10.5194/cp-8-117-2012**, 2012
- J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero, S. Jerez-Rodríguez, R. Lorente-Plazas, J.F. González-Rouco, E. Zorita: *Internal and external variability in regional simulations of the Iberian Peninsula climate over the last millennium*. *Climate of the Past*, **8**, pp 25-36, **doi:10.5194/cp-8-25-2012**, 2012
- P. Jiménez-Guerrero, O. Jorba, T. M. Pay, J. P. Montávez, S. Jerez, J. J. Gómez-Navarro, J. M. Baldasano: *Comparison of two different sea-salt aerosol schemes as implemented in air quality models applied to the Mediterranean Basin*. *Atmospheric Chemistry and Physics*, **11**, pp 4833-4850, **doi:10.5194/acp-11-4833-2011**, 2011
- P. Jiménez-Guerrero, J.J. Gómez-Navarro, S. Jerez, R. Lorente-Plazas, J.A. García-Valero, J.P. Montávez: *Isolating the effects of climate change in the variation of secondary inorganic aerosols (SIA) in Europe for the 21st century (1991-2100)*. *Atmospheric Environment*, **45**, pp 1059-1063, **doi:10.1016/j.atmosenv.2010.11.022**, 2011
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas, J.F. González-Rouco and E. Zorita: *A regional climate simulation over the Iberian Peninsula for the last millennium*. *Climate of the Past*, **7**, pp 451-472, **doi:10.5194/cp-7-451-2011**, 2011
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, P. Jiménez-Guerrero, J.M. Jiménez, J.F. González-Rouco: *Temperature sensitivity to the land-surface model in MM5 climate simulations over the Iberian Peninsula*. *Meteorologische Zeitschrift*, **19**, pp 363-374, **doi:10.1127/0941-2948/2010/0473**, 2010
- J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero, S. Jerez, J.A. García-Valero, J.F. González-Rouco: *Warming patterns in regional climate change projections over the Iberian Peninsula*. *Meteorologische Zeitschrift*, **19**, pp 275-285, **doi:10.1127/0941-2948/2010/0351**, 2010

## ■ Book Chapters

- J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J.A. García-Valero y P. Jiménez-Guerrero. Chapter Capítulo 2.2, pp. 39–45. In *Incertidumbres en las proyecciones de cambio climático*. Francisco Victoria Jumilla (Ed.) Ediciones de la Consejería de Agricultura y Agua, 2010. ISBN 978-84-693-8114-4.
- J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J.A. García-Valero. Chapter Capítulo 2.3, pp. 188–220. In *Sostenibilidad ambiental en la Región de Murcia*. Julia Martínez y Miguel Angel Esteve (Ed.) Ediciones de la Universidad de Murcia, 2009. ISBN 978-84-8371-915-2.

## ■ Other publications

- J.A. García-Valero, J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero, R. Lorente-Plazas, J.F. González-Rouco, E. Zorita: *Influencia de los forzamientos en los tipos de*

*circulación sobre la Península Ibérica en el último milenio*. 8º Congreso de la Asociación Española de Climatología, Legal Deposit S. 545-2012. José M.<sup>a</sup> Cuadrat Prat, Pedro Dorta Antequera, María José Estrela Navarro, Fidel González Rouco, José Antonio López Díaz, Juan Carlos García Codrón, Fernando Sánchez Rodrigo, Javier Martín Vide y Ricardo García Herrera (Scientific committee) (Ed.) Publicaciones de la AEC. Salamanca, Spain, 2012. ISBN: 978-84-695-4331-3

- J.P. Montávez, J.J. Gómez-Navarro, S. Jerez, R. Baró, R. Lorente-Plazas, J.A. García-Valero P. Jiménez-Guerrero: *Análisis del papel de la elección de la base de datos reticular observacional en la evaluación de modelos climáticos regionales*. 8º Congreso de la Asociación Española de Climatología, Legal Deposit S. 545-2012. José M.<sup>a</sup> Cuadrat Prat, Pedro Dorta Antequera, María José Estrela Navarro, Fidel González Rouco, José Antonio López Díaz, Juan Carlos García Codrón, Fernando Sánchez Rodrigo, Javier Martín Vide y Ricardo García Herrera (Scientific committee) (Ed.) Publicaciones de la AEC. Salamanca, Spain, 2012. ISBN: 978-84-695-4331-3
- R. Lorente-Plazas, J.P. Montávez, S. Jerez, J. J. Gómez Navarro, P. Jiménez Guerrero, P. A. Jiménez, J.A. García-Valero, F. Gomáriz-Castillo, F. Alonso-Sarría: *EOLMAP: A web tool to assess the wind resource over Spain*. Interantional conference on renewable energies an power quality (ICREPQ' 12), Serie A N°7 Vol.I 95-105. Felipe Fernández, Encarna Galián y Rosa C añada (Ed.) Publicaciones de la AEC. Santiago de Compostela, Spain, 2012. ISBN: 987-84-615-6648-8
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas: *Re-construcciones paleoclimáticas de la Península Ibérica desde una perspectiva de modelización*. Clima, Ciudad y Ecosistemas, Serie A N°7 Vol.I 95-105. Felipe Fernández, Encarna Galián y Rosa Cañada (Ed.) Publicaciones de la AEC. Madrid, Spain, 2010. ISBN: 978-84-7628-658-6
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, P. Jiménez-Guerrero, R. Lorente-Plazas: *Análisis de extremos de temperatura en un conjunto de proyecciones de cambio climático*. Clima, Ciudad y Ecosistemas, Serie A N°7 Vol.I 139-150. Felipe Fernández, Encarna Galián y Rosa Cañada (Ed.) Publicaciones de la AEC. Madrid, Spain, 2010. ISBN: 978-84-7628-658-6
- P. Jimenez-Guerrero, S. Jerez, J.J. Gómez-Navarro, R. Lorente, J.A. García-Valero and J.P. Montavez: *Impacts of climate change on air quality levels in southwestern Europe for the 21st century*. 13th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, pp 327–331. Armand Albergel (Ed.) ARIA Technologies. Paris, France, 2010. ISBN: 2-8681-5062-4
- Jerez, S., J.P. Montávez, P. Jiménez-Guerrero, J.J. Gómez-Navarro and J.F. González-Rouco: *Influence of soil moisture-near surface temperature feedback on present and future climate simulations over the Iberian Peninsula*. Proceedings of the 2nd International Lund RCM Workshop: 21th Century Challenges in Regional-scale Climate Modelling, pp 261-262. Burkhardt Rockel, Lars Bärring y Marcus Reckermann (Ed.) Editorial of the University of Lund. Lund, Sweeden, 2009. ISBN: 1681-6471
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez and P. Jiménez-Guerrero: *Climate change projections for the XXI century over the Iberian Peninsula using dynamical downscaling*. Proceedings of the 2nd International Lund RCM Workshop: 21th Century Challenges in Regional-scale Climate Modelling, pp 25-26. Burkhardt Rockel, Lars Bärring y Marcus Reckermann (Ed.) Editorial of the University of Lund. Lund, Sweeden, 2009. ISBN: 1681-6471

- P. Jiménez-Guerrero, S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, J.A. García-Valero and J.F. González-Rouco: *Regional climate change projections using a physics ensemble over the Iberian Peninsula*. Proceedings of the 2nd International Lund RCM Workshop: 21st Century Challenges in Regional-scale Climate Modelling, pp. 130-131. Burkhardt Rockel, Lars Bärring y Marcus Reckermann (Ed.) Editorial of the University of Lund. Lund, Sweden, 2009. ISBN: 1681-6471

## **PARTICIPATION IN RESEARCH CONTRACTS OF SPECIAL RELEVANCE WITH COMPANIES AND/OR PRIVATE OR PUBLIC FUNDING BODIES**

- **Title:** *Technical support for the development of an emission inventarium in the Region of Murcia*  
**Participant institutions:** TRAGSATEC, UMU  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Funding agency:** TRAGSATEC S.A.  
**Code:** UMU-XXXX  
**Amount:** 11341  
**Number of researchers:**  
**Duration** from 29/09/2010 until 15/01/2011
- **Title:** *Generation of pseudoreal data bases using regional circulation models*  
**Participant institutions:** TRAGSATEC, UMU  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Funding agency:** TRAGSATEC S.A.  
**Code:** UMU-13139  
**Amount:** 11341  
**Number of researchers:**  
**Duration** from 22/02/2010 until 22/06/2010
- **Title:** *Generation of pseudoreal data bases using regional circulation models*  
**Participant institutions:** TRAGSATEC, UMU  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Funding agency:** TRAGSATEC S.A.  
**Code:** UMU-12761  
**Amount:** 7341  
**Number of researchers:**  
**Duration** from 01/11/2009 until 01/01/2010
- **Title:** *Extreme climatic events in the Iberian Peninsula: high-resolution simulations and future projections*  
**Participant institutions:** UM, IEA  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Funding agency:** Euromediterranean Institute for Water Research (IEA) - Foundation  
**Code:** –  
**Amount:** 23400  
**Number of researchers:** 5  
**Duration** from 25/12/2009 until 31/12/2010
- **Title:** *Generation of pseudoreal data bases using regional circulation models*  
**Participant institutions:** UMU, Global Forecasters  
**Principal Investigator:** Juan Pedro Montávez Gómez  
**Funding agency:** Global Forecasters  
**Code:** UMU-12199



**Amount:** 25000

**Number of researchers:**

**Duration** from 15/04/2009 until 15/04/2010

- **Title:** *Implementation and Application of the EC-EARTH model to improve the seasonal and decadal climatic forecast*

**Participant institutions:** UMU, BSC

**Principal Investigator:** Juan Pedro Montávez Gómez

**Funding agency:** Barcelona Supercomputing Centre

**Code:** UM-12752

**Amount:** 30360

**Number of researchers:**

**Duration** from 01/12/2009 until 31/12/2012

- **Title:** *Generation of high-resolution climate change projections for the southeastern Iberian Peninsula*

**Participant institutions:** University of Murcia

**Principal Investigator:** Juan Pedro Montávez Gómez

**Funding agency:** Euromediterranean Institute for Water Research (IEA) - Foundation

**Code:** UM-5381

**Amount:** 22000

**Number of researchers:** 4

**Duration** from 2008 until 2009

- **Title:** *Generation of a high-resolution data base of climate change projections for several meteorological and hydrological variables for the southeastern Iberian Peninsula*

**Participant institutions:** University of Murcia

**Principal Investigator:** Juan Pedro Montávez Gómez

**Funding agency:** Euromediterranean Institute for Water Research (IEA) - Foundation

**Code:** UM-5052

**Amount:** 24500

**Number of researchers:** 4

**Duration** from 2007 until 2008

## RESEARCH STAYS IN INTERNATIONAL CENTRES

- **Institution:** Justus Liebig University Giessen  
**Place:** Giessen (Germany)  
**Date:** 06-2011                      Number of weeks: 4  
**Topic:** Analysis of climate paleosimulations and comparison with proxy reconstructions
- **Institution:** GKSS  
**Place:** Geesthacht (Germany)  
**Date:** 06-2010                      Number of weeks: 8  
**Topic:** Analysis of climate paleosimulations and comparison with proxy reconstructions
- **Institution:** Environmental Sciences Research Centre (ESRC)  
**Place:** Antigonish (Nova Scotia) (Canada)  
**Date:** 07-2009                      Number of weeks: 6  
**Topic:** Climate Change Projections in high latitudes: evolution of permafrost
- **Institution:** European Centre for Medium-Range Weather Forecast  
**Place:** Reading (United Kingdom)  
**Date:** 09-2008                      Number of weeks: 1  
**Topic:** Courses on the use of the ECMWF facilities

- **Institution:** European Centre for Medium-Range Weather Forecast  
**Place:** Reading (United Kingdom)  
**Date:** 02-2008                      Number of weeks: 4  
**Topic:** Courses on the use of the ECMWF facilities
- **Institution:** Bariloche Atomic Centre  
**Place:** Bariloche (Argentina)  
**Date:** 08-2006                      Number of weeks: 5  
**Topic:** Elaboration of a model for the interactions between matter and particle: study of the Barkas effect

## INTERNATIONAL CONGRESSES

### Oral presentation in congress, workshops, etc.

- J.P. Montávez, J.J. Gómez-Navarro, S. Jerez, R. Baro, R. Lorente, J.A. García-Valero, P. Jimenez-Guerrero. *Evaluation of Regional climate models: how much can we trust in gridded observational data sets?*. EGU General Assembly 2012. Vienna, Austria. 4-2012
- P. Jimenez-Guerrero, R. Baro, J.J. Gómez-Navarro, R. Lorente, J.A. García-Valero, Z. Hernández, J.P. Montávez. *What strategy is needed for attaining the EU air quality regulations under future climate change scenarios? A sensitivity analysis over Europe*. EGU General Assembly 2012. Vienna, Austria. 4-2012
- R. Lorente-Plazas, J.P. Montávez, S. Jerez, J. J. Gómez Navarro, P. Jiménez Guerrero, P. A. Jiménez, J.A. García-Valero, F. Gomáriz-Castillo, F. Alonso-Sarría. *EOLMAP: A web tool to assess the wind resource over Spain*. International conference on renewable energies and power quality (ICREPQ' 12). Santiago de Compostela, Spain. 04-2012
- R. Lorente-Plazas, J.P. Montávez, S. Jerez, J. J. Gómez Navarro, P. Jiménez Guerrero, P. A. Jiménez, J.A. García-Valero, F. Gomáriz-Castillo, F. Alonso-Sarría. *EOLMAP: A web tool to assess the wind resource over Spain*. International conference on renewable energies and power quality (ICREPQ' 12). Santiago de Compostela, Spain. 04-2012
- R. Baró, J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero. *What strategy is needed for attaining the EU air quality legislation in coastal areas? A sensitivity analysis in the Iberian Peninsula*. 8th International conference on air quality: Science and Application. Athens, Greece. 4-2012
- P. Jiménez-Guerrero, S. Jerez, J.J. Gómez-Navarro, J.P. Montávez. *A physics ensemble of air quality-climate change projections over southwestern Europe*. Advanced Study Program Early Career Scientist Assembly Workshop (ASP-ECSA). Boulder, USA. 10-2011
- R. Lorente-Plazas, J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J.A. García-Valero, P. Jiménez-Guerrero, P.A. Jiménez y J.F. González-Rouco. *Regional characterization of the observed and modelled wind over Spain*. 11th European Meteorological Society Annual Meeting and 10th European Conference on Applications of Meteorology (ECAM). Berlin, Germany. 09-2011
- J.P. Montávez, J.J. Gómez-Navarro, R. Lorente-Plazas, S. Jerez, J.A. García-Valero, P. Jiménez-Guerrero y J.F. González-Rouco. *Uncertainties in regional models and observations*. 11th European Meteorological Society Annual Meeting and 10th European Conference on Applications of Meteorology (ECAM). Berlin, Germany. 09-2011

- I. Dorado Liñán, U. Büntgen, F. González-Rouco, E. Zorita, J.P. Montávez, J.J. Gómez-Navarro, G. Helle y E. Gutierrez. *Tree-ring reconstructions and model simulations reveal millennium-long temperature coherency in the Pyrenees*. 11th European Meteorological Society Annual Meeting and 10th European Conference on Applications of Meteorology (ECAM). Berlin, Germany. 09-2011
- P. Jiménez-Guerrero, S. Jerez, J.J. Gómez-Navarro, R. Lorente-Plazas, J.A. García Valero y J.P. Montávez. *A physics ensemble of air quality-climate change projections over southwestern Europe for the 21st century*. 11th European Meteorological Society Annual Meeting and 10th European Conference on Applications of Meteorology (ECAM). Berlin, Germany. 09-2011
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas, J.F. González-Rouco, E. Zorita. *Characterizing the role of internal variability in regional Climate paleosimulations*. XVIII INQUA-Congress. Bern, Switzerland. 07-2011
- P. Jiménez-Guerrero, J.J. Gómez-Navarro, S. Jerez, Z. Hernández, R. Lorente-Plazas, J.A. García-Valero, J.P. Montávez. *Linking meteorology and air quality under a changing climate: future European air pollution under several IPCC scenarios*. EGU General Assembly. Vienna, Austria. 04-2011
- J. Luterbacher, J.J. Gómez-Navarro, J.P. Montávez, J.F. González-Rouco, J.G. Werner E. Zorita. *Comparison of century-long regional climate experiments with proxy based climate reconstructions over the Iberian Peninsula (Solicited)*. AGU Fall Meeting 2010. San Francisco, EEUU. 12-2011
- J. Luterbacher, J.J. Gómez-Navarro, J.F. González-Rouco, J.P. Montávez, S. Wagner, E. R. Wahl, J. Wemer, E. Zorita. *Regional climate simulation over Europe over the past 500 years: comparison with proxy-based reconstructions*. 10th EMS Annual Meeting & 8th European Conference on Applied Climatology. Zurich, Suiza. 09-2010
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas, J.F. González-Rouco, E. Zorita. *Comparison of two millennial regional climate experiments over the Iberian Peninsula*. 10th EMS Annual Meeting & 8th European Conference on Applied Climatology. Zurich, Suiza. 09-2010
- P. Jiménez-Guerrero, S. Jerez, J.J. Gómez-Navarro, R. Lorente, J.A. García-Valero, J.P. Montávez. *Impacts of climate change in the future urban air pollution of European Megacities*. 2010 The Meeting of the Americas. Foz de Iguazu, Brasil. 08-2010
- P. Jiménez-Guerrero, S. Jerez, J.J. Gómez-Navarro, R. Lorente, J.A. García-Valero, J.P. Montávez. *Impacts of climate change on air quality levels in southwestern Europe for the 21st century*. 13th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes. Paris, France. 06-2010
- P. Jimenez-Guerrero, J.J. Gómez-Navarro, S. Jerez, Raquel Lorente, Juan A. García-Valero, and Juan P. Montávez. *Analysing the influence of climate change on future air quality (XXI century): from European to local scales*. EGU General Assembly 2010. Vienna, Austria. 03-2010
- J.A. García-Valero, J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, R. Lorente, P. Jimenez-Guerrero, and J.F. Gonzalez-Rouco. *Characterization of the atmospheric circulation over the Iberian Peninsula using ERA40 reanalysis and projected changes in an ensemble of GCMs*. EGU General Assembly 2010. Vienna, Austria. 03-2010

- S. Jerez, Juan P. Montávez, Juan J. Gómez-Navarro, Pedro Jimenez-Guerrero, Raquel Lorente, Juan A. García-Valero, Pedro A. Jimenez, Jose F. Gonzalez-Rouco, Eduardo Zorita. *Analysis of the PDFs of temperature from a multi-physics ensemble of climate change projections over the Iberian Peninsula*. EGU General Assembly 2010. Vienna, Austria. 03-2010
- P. Jiménez-Guerrero, J.J. Gómez-Navarro, S. Jerez, R. Lorente, J.A. García-Valero, J.P. Montávez. *Impacts of climate change on aerosol levels in the Iberian Peninsula and southeastern Spain for the XXI century*. Segundas Jornadas de Meteorología y Climatología del Mediterráneo Occidental. Valencia, Spain. 03-2010
- J.P. Montávez, J. Jiménez-Gutierrez, S. Jerez, J.J. Gómez-Navarro, R. Lorente, J.A. García-Valero, P. Jiménez-Guerrero. *Evolución de la cubierta vegetal y su papel sobre las tendencias térmicas de la Península Ibérica*. Segundas Jornadas de Meteorología y Climatología del Mediterráneo Occidental. Valencia, Spain. 03-2010
- P. Jiménez-Guerrero, M.T. Pay, J.M. Baldasano, O. Jorba, J.J. Gómez-Navarro, S. Jerez, J.P. Montávez. *Comparison of two different sea salt aerosol schemes as implemented in air quality models applied to the Mediterranean*. ACCENT/GLOREAM 22nd Workshop on tropospheric chemical transport modelling. Brescia, Italy. 11-2009
- P. Jiménez-Guerrero, J.P. Montávez, J.J. Gómez-Navarro, S. Jerez, R. Lorente. *Modelling the seasonality of aerosols within the Mediterranean basin*. International workshop on Atmospheric Composition Changes: Climate-Chemistry Interactions. Lecce, Italy. 11-2009
- P. Jiménez-Guerrero, J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, R. Lorente. *Effects of changing climate on future secondary inorganic aerosol levels (sulphate-nitrate-ammonium) in Europe for the 21st century (1991-2100)*. International workshop on Atmospheric Composition Changes: Climate-Chemistry Interactions. Lecce, Italy. 11-2009
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, J.A. García-Valero, P. Jiménez-Guerrero, E. Zorita, J.F. González-Rouco. *The climate of the Iberian Peninsula during the last five centuries from a regional climate model perspective*. Annual meeting 9th EMS-9th ECM. Toulouse, France. 09/10-2009
- S. Jerez, J.P. Montávez, P. Jimenez-Guerrero, J.J. Gómez-Navarro and J.F. Gonzalez-Rouco. *Influence of soil moisture-near surface temperature feedback on present and future climate simulations over the Iberian Peninsula*. 21th Century Challenges in Regional-scale Climate Modelling. Lund, Sweden. 05-2009
- P. Jimenez-Guerrero, S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, J.A. García-Valero, and J.F. Gonzalez-Rouco. *A physics ensemble of regional climate change projections over the Iberian Peninsula*. EGU General Assembly 2009. Vienna, Austria. 04-2009
- S. Jerez, J.P. Montávez, P. Jimenez-Guerrero, J.J. Gómez-Navarro, J.A. García-Valero, J. Gonzalez-Rouco, J.M. Jimenez. *Land-climate interactions from models and observations: Implications from past to future climate*. EGU General Assembly 2009. Vienna, Austria. 04-2009
- J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J.A. García-Valero, P. Jiménez, J.F. González-Rouco. *Análisis de los cambios en temperatura y precipitación proyectados en un conjunto de simulaciones regionales de cambio climático sobre la Península Ibérica*. Clima en España: Pasado. Presente y Futuro. Contribución a un informe de Evaluación del Cambio Climático Regional. Madrid, Spain. 02-2009

- J.P. Montávez, J.A. García-Valero, S. Jerez, J.J. Gómez-Navarro. *Detección y atribución del cambio climático sobre la Península Ibérica usando modelos regionales*. XXX Jornadas Científicas de la AME. Zaragoza. 05-2008
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, S.B. Navarro, J.A. García-Valero, F. González-Rouco. *Simulación del clima de la Península Ibérica: sensibilidad al modelo de suelo*. XXX Jornadas Científicas de la AME. Zaragoza, Spain. 05-2008
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, S.B. Navarro, J.A. García-Valero, F. González-Rouco. *Proyecciones de cambio climático en la Península Ibérica: asimetrías espacial y estacional en los patrones de calentamiento*. XXX Jornadas Científicas de la AME. Zaragoza. 05-2008
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, S.B. Navarro, J.A. García-Valero, F. González-Rouco, F. Valero. *The role of land-surface interactions in simulating the climate of the Iberian Peninsula*. General Assembly 2008. Vienna, Austria. 04-2008

#### ■ Posters in congress, workshops, etc.

- J.J. Gómez-Navarro, S. Wagner, E. Zorita. *Changes in distribution of daily temperature and precipitation between the Late Maunder Minimum and the 2nd half of the 20th century: A regional model study*. AGU Fall Meeting 2012. San Francisco, USA. 12-2012
- R. Baró, J.A. García-Valero, J.J. Gómez-Navarro, R. Lorente-Plazas, J.P. Montávez, P. Jiménez-Guerrero. *Characterizing extreme air pollution events over the Iberian Peninsula by establishing the Circulation Types*. EGU General Assembly 2012. Vienna, Austria. 4-2012
- R. Lorente-Plazas, J.P. Montávez, J.A. García-Valero, J.J. Gómez-Navarro, S. Jerez, R. Baró, P.A. Jiménez, P. Jiménez-Guerrero. *Spatial and temporal wind variability over Spain and its relationship with synoptic weather types*. EGU General Assembly 2012. Vienna, Austria. 4-2012
- J.A. García-Valero, J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero, R. Lorente-Plazas, R. Baró, E. Zorita. *External forcing influence on Weather Types along the last Millennium*. EGU General Assembly 2012. Vienna, Austria. 4-2012
- J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero, J.F. González-Rouco, E. García-Bustamante, J. Luterbacher, E. Zorita. *Assessing the Physical Consistence of Several Gridded Reconstructions Over Europe Through a High-Resolution Climate Paleosimulation*. EGU General Assembly 2012. Vienna, Austria. 4-2012
- P. Jiménez-Guerrero, J.P. Montávez, J.J. Gómez-Navarro, Z. Hernández, S. Jerez, R. Lorente-Plazas. *CLIVAR-Spain contributions: Establishing an aerosol climatology for the Mediterranean Basin*. World Climate Research Programme (WCRP) Open Science Conference. Denver, USA. 10-2011
- P. Jiménez-Guerrero, S. Jerez, J.J. Gómez-Navarro, R. Lorente-Plazas, J.P. Montávez. *A physics ensemble of air quality-climate change projections over southwestern Europe for the 21st century*. World Climate Research Programme (WCRP) Open Science Conference. Denver, USA. 10-2011
- F. S. Rodrigo, J.J. Gómez-Navarro y J.P. Montávez. *Reconstruction of the climate of Andalusia (southern Spain) during the period 1750-1850 from documentary sources: evaluation and comparison with climate model simulations*. 11th European Meteorological Society Annual Meeting and 10th European Conference on Applications of Meteorology (ECAM). Berlin, Germany. 09-2011

- P. Jiménez-Guerrero, J.J. Gómez-Navarro, Z. Hernández, R. Lorente Plazas, S. Jerez, J.P. Montávez. *Defining the spatio-temporal changes in future air pollution in the Mediterranean under SRES A2 and B2 scenarios*. 3rd International Meeting on Meteorology and Climatology of the Mediterranean. Castellana de la Gudiña, Spain. 6-2011
- J.F. González-Rouco, L. Fernández-Donado, J. Smerdon, V. Rath, E. Zorita, J.P. Montávez, J. J. Gómez-Navarro. *Quality control of air and ground surface temperatures in the Iberian Peninsula*. EGU General Assembly 2011. Vienna, Austria. 4-2011
- J.F. González-Rouco, L. Fernández-Donado, J. Smerdon, V. Rath, E. Zorita, J.P. Montávez, J. J. Gómez-Navarro. *Quality control of air and ground surface temperatures in the Iberian Peninsula*. EGU General Assembly 2011. Vienna, Austria. 4-2011
- J.P. Montávez, J.A. García-Valero, J.J. Gómez-Navarro, S. Jerez, R. Lorente-Plazas and P. Jiménez-Guerrero. *Frequency, persistence and transitions of seasonal Weather Types affecting the Iberian Peninsula*. EGU General Assembly 2011. Vienna, Austria. 4-2011
- Z. Hernández, J.P. Montávez, J.J. Gómez-Navarro, S. Jerez, R. Lorente-Plazas and P. Jiménez-Guerrero. *An assessment of present climatological droughts in the western Mediterranean (Iberian Peninsula) by using high-resolution regional climate simulations*. EGU General Assembly 2011. 4-2011. Vienna, Austria
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas, J.F. González-Rouco, E. Zorita and J.A. García-Valero. *Assessing the role of internal variability in Regional Climate Paleosimulations*. EGU General Assembly 2010. Vienna, Austria. 4-2011
- R. Lorente-Plazas, J.P. Montávez, D. Pozo-Vázquez, J.J. Gómez-Navarro, J.A. García-Valero, P. Jiménez-Guerrero, P.A. Jiménez, S. Jerez and J.F. González-Rouco. *EOLMAP: A pseudoreal wind database for small wind turbines for the Iberian Peninsula*. EGU General Assembly 2010. Vienna, Austria. 4-2011
- S. Jerez, J.J. Gómez-Navarro, P. Jiménez-Guerrero, R. Lorente-Plazas y J.P. Montávez. *Uncertainties in MM5 climate simulations: physics configuration vs. driving conditions*. AGU 2010 Fall Meeting. San Francisco, USA. 12-2010
- P. Jiménez-Guerrero, J.J. Gómez-Navarro, S. Jerez, R. Lorente-Plazas y J.P. Montávez. *Defining the common spatio-temporal patterns of aerosols in Europe for the XXI century under different IPCC SRES scenarios*. AGU 2010 Fall Meeting. San Francisco, USA. 12-2010
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas, J.F. González-Rouco, E. Zorita. *Comparison of a regional paleoclimate simulation over Europe for the last 500 years with proxy-based reconstructions*. AGU 2010 Fall Meeting. San Francisco, USA. 12-2010
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jiménez-Guerrero, R. Lorente-Plazas. *Reconstrucciones paleoclimáticas de la Península Ibérica desde una perspectiva de modelización*. VII Congreso de la Asociación Española de Climatología. Madrid, Spain. 11-2010
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, P. Jiménez-Guerrero, R. Lorente-Plazas. *Análisis de extremos de temperatura en un conjunto de proyecciones de cambio climático*. VII Congreso de la Asociación Española de Climatología. Madrid, Spain. 11-2010



- J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J. A. García-Valero, R. Lorente, P. Jimenez-Guerrero, F. J. Gonzalez-Rouco. *Land-atmosphere coupling at regional scales: implications in present variability and regional climate projections*. 2010 The Meeting of the Americas. Foz de Iguazu, Brazil. 08-2010
- J.A. Garcia-Valero, J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, P.A. Jiménez, and J.F. González-Rouco. *Changes in frequency of weather types and their relationship with precipitation patterns over South-East of the Iberian Peninsula*. Annual meeting 9th EMS-9th ECM. Toulouse. 09/10-2009
- P. Jimenez-Guerrero, S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, J.A. García-Valero and J.F. Gonzalez-Rouco. *Regional climate change projections using a physics ensemble over the Iberian Peninsula*. 21th Century Challenges in Regional-scale Climate Modelling. Lund, Sweden. 05-2009
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez and P. Jiménez-Guerrero. *Climate change projections for the XXI century over the Iberian Peninsula using dynamic downscaling*. 21th Century Challenges in Regional-scale Climate Modelling. Lund, Sweden. 05-2009
- J.P. Montávez, P.A. Jimenez, S. Bermudez-Navarro, S. Jerez, J.J. Gómez-Navarro, J.A. García-Valero, E. García-Bustamante, P. Jimenez-Guerrero, J. Navarro, and J.F. Gonzalez-Rouco. *An assessment of wind energy resources in the Iberian Peninsula by using dynamical downscaling*. EGU General Assembly 2009. Vienna, Austria. 04-2009
- A. Hidalgo, M. Marchante, P.A. Jiménez, E. García-Bustamante, J.P. Montávez, J.J. Gómez-Navarro, M.C. Rico, S. Jerez, J. Navarro, and J.F. González-Rouco. *Validation of the mesoscale model MM5 in reproducing the wind variability in Turkey*. EGU General Assembly 2009. Vienna, Austria. 04-2009
- L. Fernández-Donado, J.F. González-Rouco, J.P. Montávez, J.J. Gómez-Navarro, V. Rath, and H. Beltrami. *Surface air and ground surface temperature coupling in the Iberian Peninsula: dataset and analysis of thermal propagation*. EGU General Assembly 2009. Vienna, Austria. 04-2009
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, P. Jimenez-Guerrero, J.A. Garcia-Valero, J.F. Gonzalez-Rouco. *Climate of the last millennium: reconstructions, analyses and explanation of regional and seasonal changes*. EGU General Assembly 2009. Vienna, Austria. 04-2009
- A. Hidalgo, J.F. González-Rouco, M. Marchante, P.A. Jiménez, E. García-Bustamante, J. Navarro, M.C. Rico, J.P. Montávez, J.J. Gómez-Navarro, S. Jerez. *Validation of the mesoscale model MM5 in reproducing the wind variability in Turkey*. Clima en España: Pasado. Presente y Futuro. Contribución a un informe de Evaluación del Cambio Climático Regional. Madrid, Spain. 02-2009
- J.J. Gómez-Navarro, J.P. Montávez, S. Jerez, J.A. García-Valero, P. Jiménez and J.F. González-Rouco. *Sobre la relación del calentamiento y la altura en proyecciones regionales de cambio climático*. Clima en España: Pasado. Presente y Futuro. Contribución a un informe de Evaluación del Cambio Climático Regional. Madrid, Spain. 02-2009
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, J.A. García-Valero, J.F. González-Rouco. *Sensibilidad de la temperatura al modelo de suelo en simulaciones con MM5 sobre la Península Ibérica*. Clima en España: Pasado. Presente y Futuro. Contribución a un informe de Evaluación del Cambio Climático Regional. Madrid, España. 02-2009

- J.M. Jiménez-Gutierrez 2, J.P. Montávez 1, S. Jerez, J.J. Gómez-Navarro, F. Valero. *Sensibilidad de simulaciones regionales climáticas a la fracción de vegetación*. Clima en España: Pasado. Presente y Futuro. Contribución a un informe de Evaluación del Cambio Climático Regional. Madrid, España. 02-2009
- J.A. García-Valero, J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J.F. González Rouco. *Estudio de la variabilidad de la precipitación diaria en la Región de Murcia*. Clima en España: Pasado. Presente y Futuro. Contribución a un informe de Evaluación del Cambio Climático Regional. Madrid, España. 02-2009
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, J.F. González-Rouco. *Evaluation of soil models coupled to a RCM in simulating the Iberian Peninsula Climate*. AGU 2008 Fall Meeting. San Francisco, USA. 12-2008
- J.P. Montávez, J.J. Gómez-Navarro, S. Jerez, J.A. García-Valero, J.F. González-Rouco. *Past and present regional climate simulations for the Iberian Peninsula*. AGU 2008 Fall Meeting. San Francisco, USA. 12-2008
- I. Abril, C. D. Denton, R. Garcia-Molina, J.J. Gómez-Navarro, y N. R. Arista. *Barkas effects for dressed projectiles in a free electron gas: a classical calculation of the contribution due to close collisions*. 23rd International Conference on Atomic Collisions in Solids. ICACS 23. Phalaborwa. 08-2008
- C. D. Denton, R. Garcia-Molina, J.J. Gómez-Navarro, I. Abril y N. R. Arista. *Contribution of close collisions to the Barkas effect for dressed projectiles*. 7th International Symposium on Swift Heavy Ion in Matter. Lyon. 06-2008
- S. Jerez, J.P. Montávez, J.J. Gómez-Navarro, S.B. Navarro. *Aplicación de la Programación Paralela: Simulaciones Climáticas*. Reunión sobre optimización de Rutinas Paralelas y Plicaciones. Murcia. 05-2008
- J.A. García-Valero, J.P. Montávez, S. Jerez, J.J. Gómez-Navarro. *Regionalización de las precipitaciones diarias de la Región de Murcia*. XXX Jornadas Científicas de la AME. Zaragoza. 05-2008
- J.J. Gómez Navarro, J.P. Montávez, S. Jerez, J.A. García Valero, S.B. Navarro, J.F. González-Rouco. *Regional climate change over the Iberian Peninsula: warming patterns and spatial and seasonal asymmetries*. EGU General Assembly 2008. Vienna, Austria. 04-2008
- J.P. Montávez, S. Jerez, J.J. Gómez-Navarro, J.A. García-Valero, J. Saenz, J.F. González-Rouco. *Detection and attribution of climate change in the Iberian Peninsula by using regional climate models*. EGU General Assembly 2008. Vienna, Austria. 04-2008

## TEACHING ACTIVITIES

### Batchelor subjects

- **Practical seasons in the subject Meteorology and Climatology** (2.5 ECTS) in 4th course in the Environment Sciences degree in the University of Murcia during the course 2010-2011
- **Practical seasons in the subject Meteorology and Climatology** (2.5 ECTS) in 2nd course in the Environment Sciences GRADO in the University of Murcia during the course 2010-2011



- **Theoretical seasons in the subject Energy and Environment (Nuclear Power)** (1 credit) in 5th course in the Environment Sciences degree in the University of Murcia during the course 2010-2011
- **Practical seasons in the subject Meteorology and Climatology** (4.5 ECTS) in 4th course in the Environment Sciences degree in the University of Murcia during the course 2009-2010
- **Practical seasons in the subject Meteorology and Climatology** (1.5 ECTS) in 2nd course in the Environment Sciences GRADO in the University of Murcia during the course 2009-2010

#### ■ Seminars

- *Analysis of Regional High Resolution Simulations of The Climate of Several Areas of Europe in The Last Centuries*. Seminar in the Department of Geography. Justus Liebig University Giessen. Germany. **6-2011**.
- *Introduction to Paleoclimatology*. 2-hours seminar in the subject Meteorology and Climatology in the Master Water Resources Management. University of Murcia. **3-2011**.
- *Research Topics in the Regional Atmospheric Modelling Group at the University of Murcia (Spain)*. Seminar in ESRC. University St. Francis Xavier, Nova Scotia, Canada. **7-2009**.
- *Empirical Orthogonal Functions*. Seminar in the Department of Physics. University of Murcia. **5-2008**.
- *Classical Study of Molecular Vibrations*. Atomic collision division. Bariloche Atomic Centre. Argentina. **9-2006**.

#### ■ Advisor of B. S. Thesis

- Lidia López Martínez. *Modelling of the Wind Power in the area of Murcia*. University de Murcia. Calificación **9.3**. February 2010.
- Jose Javier Fernández Ros. *Cabañuelas: there exist forecast skill?*. University de Murcia. Calificación **8.6**. February 2010.

#### ■ EXPERIENCE IN LARGE COMPUTATIONAL SYSTEM

- User of the ECMWF (Reading, UK) computational facilities
- User of the DKRZ (German Climate Computing Centre) computational facilities
- User of the ACE-net system (The Atlantic Computational Excellence Network)
- User and administration of PC's clusters (Beowulf)

#### ■ OTHER MERITS

## ■ Training activities

- **Title:** *Programation in Java focused on Mathematics*  
**Organizer:** Vicerectorado de Estudios  
**Place:** University of Murcia  
**Date:** May 2003
- **Title:** *SMS*  
**Organizer:** ECMWF  
**Place:** Reading (United Kingdom)  
**Date:** February 2008
- **Title:** *MetView*  
**Organizer:** ECMWF  
**Place:** Reading (United Kingdom)  
**Date:** February 2008
- **Title:** *Introduction for new users / MARS*  
**Organizer:** ECMWF  
**Place:** Reading (United Kingdom)  
**Date:** February 2008
- **Title:** *MAGICS*  
**Organizer:** ECMWF  
**Place:** Reading (United Kingdom)  
**Date:** February 2008
- **Title:** *Use of Supercomputing Resources*  
**Organizer:** ECMWF  
**Place:** Reading (Inglaterra)  
**Date:** septiembre 2008
- **Title:** *GRIB API*  
**Organizer:** ECMWF  
**Place:** Reading (United Kingdom)  
**Date:** February 2008

## ■ Grants

- Predoctoral grant of the Spanish Ministry of Education in the programme for Training of University Staff. Year 2007-2011.
- Grant of Cajamurcia to get a Master in Quantitative Finance, 10th edition. Year 2005-2006.
- Mobility grant of the Education Ministry for doctoral courses. Year 2005-2006.
- Mobility grant of the Education Ministry to get the Bachelor degree in Physics. Year 2004-2005.
- Mobility grant of the Education Ministry to get the Bachelor degree in Physics. Year 2003-2004.
- Mobility grant of the Education Ministry to get the Bachelor degree in Physics. Year 2002-2003.

- Mobility grant of the Education Ministry to get the Bachelor degree in Physics. Year 2001-2002.
- Mobility grant of the Education Ministry to get the Bachelor degree in Physics. Year 2000-2001.

#### ■ Colaboration with other institutions

- Helmholtz-Zentrum Geesthacht (Germany)
- Department of Earth Sciences of the St. Francis Xavier University (Canada)
- Department of Physics on the Complutense University of Madrid (Spain)
- Department of Geography of the University Autonoma of Madrid (Spain)
- Department of Ecology of the University of Murcia (Spain)
- Department of Physics of the University of Murcia (Spain)
- Department of Geography of the University Justus-Liebig (Germany)
- CIEMAT (Spain)
- Global Forecaster S.L. (Spain)

#### ■ Referee in International Journals

- *Climate Research*. **ISSN:** 0936-577X
- *Climate of the Past*. **ISSN:** 1814-9324

#### ■ Acquired skills

- Administrator in UNIX/LINUX systems
- Administration, building and maintenance of shared calculations systems (PC's clusters)
- Programming skills:
  - Fortran 77 and 90
  - Matlab, Mathematica
  - Shell scripts
  - Pascal, C, Java (basic level)
  - HTML, CSS, Python (basic level)
- Programation, installation and user of mesoscale models
- Other scriptale software:  $\text{\LaTeX}$ , Gnuplot, R, Grads, GMT, PINGO, CDO, Gimp, ...

#### ■ Other merits

- Award for the best student in the degree of Physics 2005
- World Climate Research Programme (WCRP) Award for Outstanding Poster Presentation. WCRP Open Science Conference, 24-28 October, Denver, Colorado, USA