# **Curriculum Vitae**

# **Juan José Gómez Navarro**

Physics Institute and Oeschger Centre for Climate Change Research University of Bern



b Universität Bern

#### PERSONAL DATA

• Family and forename: Gómez Navarro, Juan José

• Gender: Male

Marital status: Married

o 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

- o 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

- Postdoc research contract. Physics Institute and Oeschger Centre for Climate Change Research, University of Bern. from 05-2012 until currently
- Postdoc research contract. Department of Palaeoclimate, Helmholtz-Zentrum Geesthacht. from 05-2012 until 09-2013
- Postdoc research contract. Department of Physics of the University of Murcia. from 10-2011 until 04-2011
- PhD research contract. Department of Physics of the University of Murcia. from 09-2007 until 09-2011
- Administrative assistant. Departament of Global Risk Management. Cajamurcia. from 07-2008 until 09-2008

#### LANGUAGES

Language	Speaking	Reading	Writting
Spanish	Excelent	Excelent	Excelent
English	Good	Excelent	Excelent
German	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 Enviroment

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 sec-

tor

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 turbi-

nes (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. Wagner, E. Zorita: A regional climate palaeosimulation for Europe in the period 1500-1990. Part I: model validation. Climate of the Past, 9, pp 1667-1682, doi:10.5194/cp-9-1667-2013, 2013
- J.J Gómez-Navarro, E. Zorita: Atmospheric annular modes in simulations over the past millennium: No long-term response to external forcing. Geophysical Research Letters, 40, pp XX, doi:10.1002/grl.50628, 2013
- 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 Envirionment, 55, pp 483-495, doi:10.1016/j.atmosenv.2012.02.
- 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, 40, pp 3023-3046, doi:10.1007/s00382-012-1539-1, 2013
- 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. Garcia-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 Consegería 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.ª 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 commitee) (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.ª 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 commitee) (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 Nº7 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: Reconstrucciones paleoclimáticas de la Península Ibérica desde una perspectiva de modelización. Clima, Ciudad y Ecosistemas, Serie A Nº7 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 Nº7 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

- I.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 downscalling. 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: 21th 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, Sweeden, 2009. ISBN: 1681-6471

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

 Title: Technical support for the development of an emision 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 Aplication 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:** Geesthatch (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 Chage 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.J. Gómez-Navarro, S. Wagner, E. Zorita. Is the Analog Method Able to Reconstruct Precipitation Over Europe?. 13th EMS Annual Meeting & 11th European Conference on Applications of Meteorology (ECAM). Reading, UK. 9-2013
- J.J. Gómez-Navarro, E. Zorita, S. Wagner. Externally forced and internal variability of tropospheric variability modes in the past millennium. EGU General Assembly 2013. Vienna, Austria. 4-2013
- 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 an 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 an 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. Gónzalez-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. Gutirrez. 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 Assambly. 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 Mediterreanean. 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. Anual 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 Regionalscale 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 Iberica: 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.P. Montavez, S. Jerez, R. Lorente-Plazas, and J.J. Gómez-Navarro. Sensitivity of regional atmospheric paleoclimate simulations to changes in physical configuration and low boundary conditions. EMS. Reading, UK. 09-2013
- Pedro Jimenez-Guerrero, Juan J. Gómez-Navarro, Sonia Jerez, Raquel Lorente-Plazas, Rocio Baro, and Juan P. Montávez. Establishing the common patterns of future tropospheric ozone under diverse climate change scenarios. EGU General Assembly. Vienna, Austria. 04-2013
- J.J. Gómez-Navarro, S. Wagner, E. Zorita. Changes in distribution of d aily 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 Medite-rranean 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. Castellanata Maria, Italy. 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 20010. Vienna, Austria. 4-2011
- R. Lorente-Plazas, J.P. Montávez, D. Pozo-Vázquez, J.J. Gómez-Navarro, J.A. Garcia-Valero,
   P. Jiménez-Guerrero, P.A. Jiménez, S. Jerez and J.F. Gonzalez-Rouco. *EOLMAP: A pseudoreal wind database for small wind turbines for the Iberian Peninsula*. EGU General Assembly 20010. 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. Garcia-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. Anual 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, Sweeden. 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, Sweeden. 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 mesos-cale 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 Rutimas 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 curse 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. Calificaction **9.3**. February 2010.
- Jose Javier Fernández Ros. Cabañuelas: there exist forecast skill?. University de Murcia.
   Calificaction 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: MetViewOrganizer: 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 mantenienance of shared calquiations 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, instalation and user of mesoscale models
- o Other scriptale software: 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