

RAQUEL NIETO CV

January 2017

D.O.B: 10 August 1977; Ourense, Spain

Work Addresses:

University of Vigo
Group of Atmospheric and Ocean Physics
EPhysLab (Environmental Physics Laboratory, <http://ephyslab.uvigo.es>)
Campus Universitario de Ourense, As Lagoas s/n 32004. OURENSE, SPAIN

Ph:+34.988.38.72.08; Fax: +34.988.38.72.27

e-mail: rnieto@uvigo.es

Personal webpage: http://ephyslab.uvigo.es/index.php/personal_old/dra_raquel_olalla_nieto_mu_iz/

Actual POSITIONS: - Associate Professor (2012-...) University of Vigo, Spain
- Distinguish Research (2015- ...) University of Sao Paulo, Brazil

Previously Positions & Employments:

2001-2002: Junior Research Scientist UVigo, Spain
2002-2003: Junior Research Scientist University Santiago Compostela, Spain
2003-2005: Junior Research Scientist UVigo, Spain
2005-2008: Postdoc position in CGUL, Univ. of Lisbon, Portugal
2006-2012: Research Scientist. UVigo, Spain

EDUCATION:

DEGREE	INSTITUTION AND LOCATION	FIELD OF STUDY
Bachelor	2000 University of Vigo, Spain	Physics
M.S.	2002 University of Vigo, Spain	Applied Physics
PhD	2005 University of Vigo, Spain	Atmospheric Physics <i>magna cum laude</i>

RESEARCH INTERESTS:

Sources of Moisture (water vapour/precipitable water transport)
General circulation & climate modelling
Observational studies of tropical circulation systems
Climate Diagnosis
Climatic Change
Troposphere-Stratosphere Coupling
Atmospheric Variability
Synoptic Meteorology

UNESCO Codes: 2502 06, 2509 19, 2509 17, 2501 06

AFFILIATIONS:

2008-... EGU Member
2005-... AGU Member
2015-...RSEF Member (Atmospheric Physics Group committee member 2016)

HONORS

2009 European Meteorological Society "Young Scientist Award"
2011 Outstanding Young Scientist EGU
2013 Internacional Award 'Eduard Fontserè' by the Associació Catalana de Meteorologia (ACAM)

Scientific Positions

Co-Chair EGU Leonardo Conference 2016: "From Evaporation to Precipitation: the atmospheric moisture transport"

Member of the editorial board

- *2009-2015 Pure and Applied Geophysics
- *2009-... Atmospheric Science Letters
- *2009-... The Scientific World Journal: Atmospheric Systems
- *2013-... Frontiers in Atmospheric Science

Teaching Activities: several courses in PRE-GRADUATE in Physics Degree and Environmental Sciences, and PhD COURSES about Meteorology, Climatology, Teledetection, Energy and Environment, Weather and Forecasting, Climatic Models and Climate Variability.

Mentoring (Students):

- R. Castillo – PhD. in Climate Science 2015: Global sources of moisture: Characterization and Variability. University of Vigo, Spain
- M. Vázquez – PhD. in Climate Science (2013-...)
- R. Sorí – PhD. in Climate Science (2014-...)
- D. Ciric – PhD. in Applied Physics (2015- ...)
- A. Stojanovic – PhD. in Applied Physics (2016-...)

- J. Revuelto-Benedí (committee member) Ph.D. in Climate Science 2015: Application of terrestrial laser scanner for analyzing snowpack distribution in pyrenean subalpine and forested sites.
- A. Ríos-Entenza (committee member) Ph.D. in Nonlinear Physics 2013: Impact of land-atmosphere fluxes on the spring precipitation regime of the Iberian Peninsula.

- M. Cortés-Simó (academic and research advisor) M.S. in Climate Science 2014
- M. Vazquez (academic and research advisor) M.S. in Climate Science 2014
- R. Castillo (academic and research advisor) M.S. in Climate Science 2011
- L. García-Garabal (academic and research advisor) M.S. in Climate Science 2011
- M. Noguerol (research advisor) M.S. in Applied Physics 2010
- J. Bazo (academic and research advisor) M.S. in Climate Science 2010
- A. Simón (academic and research advisor) M.S. in Climate Science 2010
- F. Soto (academic and research advisor) M.S. in Applied Physics 2008

- E. Taboada (academic and research advisor) B.S. in Environmental Science 2014
- I. Algarra (academic and research advisor) B.S. in Environmental Science 2014
- K. Pereira (academic and research advisor) B.S. in Environmental Science 2016
- D. Lago (academic and research advisor) B.S. in Environmental Science 2016

I. Hoyos (visitor mentor) Universidad de Antioquía, Colombia. PhD student. 2015

Mentoring (Post-Docs):

- M. Liberato. Universidade de Tras-os-Montes e Alto-Douro (UTAD), Portugal. 2012
- L. Pampuch. Universidade de Sao Paulo, Brasil. 2015

RESEARCH SUPPORT

Participation on 25 Extramural Research Projects funded in the last 10 years including projects from the European Commission and the Spanish and Portuguese Ministries of Science.

Member of research Networks: 7 COST Actions, 2 CYTED Programs and 6 International Cooperation (by the Spanish Ministry of Education and Science with 5 Universities)

Current Support:

EVOCAR: Atmospheric moisture transport, the bridge between ocean evaporation and Arctic Sea ice melting.

PIs: Raquel Nieto & Luis Gimeno (UVigo)

Spanish Ministry of Science

2015-2018

THIS: The role of the moisture transport in extreme precipitation, floods and droughts over the Atlantic Europe.

PI: Raquel Nieto (UVigo)

Regional Government (Xunta de Galicia)

14 May 2014 – 14 May 2017

Selected Previous Research Support:

01/01/2013 - 30/09/2014 ERAnet.RUS" programme within FP7
Arctic Climate Processes Linked through the Circulation of the Atmosphere (ACPCA) Role:
research

01/01/2013 - 31/12/2015 Spanish Ministry of Economy
Transport of moisture in the Atmosphere (TRAMO) Role: PI

01/01/2012 – 31/12/2014 FCT Portugal
Mid-Latitude North Atlantic Extreme Storms Variability: Diagnosis, Modelling Dynamical Processes and
Related Impacts on Iberia (STORMEx) Role: PI

02/12/2009- 31/10/2012 Regional Government Economy and Industry Department (6 scientists)
Dynamical characterization of the Hidrological Atmospheric Cycle for Galicia (Spain) Role: PI

01/01/09-31/12/11 Spanish Ministry of Education and Science (14 scientists)
Diagnosis and modelling of the moisture sources in the Mediterranean region Role: research

april/07-april/11 European Union FP6 (59 Universities or Research centres) Climate Change
and Impact Research: the Mediterranean Environment (CIRCE) Role: research

10/01/08-10/01/10 Spanish Ministry of Education and Science (20 scientists)
Extratropical Tropopause: Diagnosis and Modelling Role: research

3/30/03-3/30/07 Spanish Ministry of Science (16 scientists)
Climatological validation of conceptual model at synoptic scale Role: research

12/01/04-12/01/07 Spanish Ministry of Education and Science (12 scientists)
Dynamics of precipitation in Spain. Role: research

09/01/05-09/01/08 Spanish Ministry of Education and Science (18 scientists)
Set up of a research center on Climate Diagnosis Role: research

12/01/06-12/01/07 Spanish Ministry of Education and Science (18 scientists)
Thermal and dynamical characterization of the extratropical tropopause: meteorological, climatic and
environmental implications Role: research

Participation on more than 60 International Seminars, Workshops or Congress with about 150 presentations (EGU, EGS, EMS, AGU, WCCC, COSPAR, COST international Schools, IAMAS, Chapman conferences, ECAC, SPARC, MEDCLIVAR, RMetSoc, MOCA...)

Reviewer for the following professional journals:

Climate Research, Meteorology and Atmospheric, Atmospheric and Physics, Atmósfera, Pure and Applied Geophysics, Journal of Marine Systems, Journal of Geophysical Research–Atmospheres, Geophysical Review Letters, ANYAS, Research Letters in Physics, Critical Reviews in Environmental Science and Technology, Monthly Weather Review, Climate Change, Atmospheric Chemistry and Physics Discussion, Quarterly Journal of the Royal Meteorological Society, Water Resources Research.

Reviewer for the following programs

Spanish Agency (ANEP), 2014

Spanish Agency (ANEP), 2016

PUBLICATIONS: 71 peer-reviewed publications included in SCI+

[71] M. Vázquez, R. Nieto, A. Drumond, L. Gimeno (2016) Moisture transport into the Arctic: Source-receptor relationships and the roles of atmospheric circulation and evaporation, Journal of Geophysical Research: Atmospheres, 121, doi:10.1002/2016JD025400

[70] D.G. Miralles, R. Nieto, N.G. McDowell, W.A. Dorigo, N.E.C Verhoest, Y.Y. Liu, A.J. Teuling, A.J. Dolman, S.P. Good, L. Gimeno (2016) Contribution of water-limited ecoregions to their own supply of rainfall, Environmental Research Letters, vol 11, doi: doi:10.1088/1748-9326/11/12/124007

[69] D. Ciric, M. Stojanovic, A. Drumond, R. Nieto, L. Gimeno (2016) Tracking the Origin of Moisture over the Danube River Basin Using a Lagrangian Approach, Atmosphere, 7(12), 162; doi:10.3390/atmos7120162

[68] A. Drumond, L. Gimeno, R. Nieto, R.M. Trigo, S.M. Vicente-Serrano (2016) Drought episodes in the climatological sinks of the Mediterranean moisture source: The role of moisture transport, Global and Planetary Change, doi: 10.1016/j.gloplacha.2016.12.004

[67] S.M. Vicente-Serrano, E. Aguilar, R. Martínez, N. Martín-Hernández, C. Azorin-Molina, A. Sanchez-Lorenzo, A. El Kenawy, M. Tomás-Burguera, E. Morán-Tejeda, J.I. Lopez-Moreno, J. Revuelto, S. Beguería, J.J. Nieto, A. Drumond, L. Gimeno, R. Nieto (2016) The complex influence of ENSO on droughts in Ecuador, Climate Dynamics, Pages: 1-23, DOI: 10.1007/s00382-016-3082-y

[66] A.M. Ramos, R. Nieto, R. Tomé, L. Gimeno, R.M. Trigo, M.L.R. Liberato, D.A. Lavers (2016) Atmospheric rivers moisture sources from a Lagrangian perspective, Earth System Dynamics, 7, 371-384, doi:10.5194/esd-7-371-2016

[65] A. Drumond, E. Taboada, R. Nieto, L. Gimeno, S.M. Vicente-Serrano, J.I. Lopez-Moreno (2016) A Lagrangian analysis of the present-day sources of moisture for major ice-core sites, Earth System Dynamics, 7, 549-558, doi:10.5194/esd-7-549-2016

[64] L. Gimeno, F. Dominguez, R. Nieto, R.M. Trigo, A. Drumond, C. Reason, A.S. Taschetto, A.M. Ramos, R. Kumar, J. Marengo (2016) Major Mechanisms of Atmospheric Moisture Transport and Their Role in Extreme Precipitation Events, Annual Review of Environment and Resources, Vol. 41

[63] A. Drumond, R. Nieto, L. Gimeno (2016) A Lagrangian approach for investigating anomalies in the moisture transport during drought episodes, Cuadernos de Investigación Geográfica, 42, pages 113-125, DOI: 10.18172/cig.2925

- [62] R. Sorí, A. Drumond, R. Nieto (2015) Moisture contribution of the Atlantic Warm Pool to precipitation: a Lagrangian analysis, *Frontiers in Environmental Science*, 3:22. doi: 10.3389/fenvs.2015.00022
- [61] M. Wegmann, Y. Orsolini, M. Vázquez, L. Gimeno, R. Nieto, O. Bulygina, R. Jaiser, D. Handorf, A. Rinke, K. Dethloff, A. Sterin, S. Brönnimann (2015) Arctic moisture source for Eurasian snow cover variations in autumn, *Environmental Research Letters*, 10 054015
- [60] P.M. Sousa, D. Barriopedro, R.M. Trigo, A.M. Ramos, R. Nieto, L. Gimeno, K.F. Turkman, M.L.R. Liberato (2015) Impact of Euro-Atlantic blocking patterns in Iberia precipitation using a novel high resolution dataset, *Climate Dynamics*, doi: 10.1007/s00382-015-2718-7
- [59] A. Drumond, L. Gimeno, R. Garcia-Herrera, R. Nieto (2015) Changes in the contribution of moisture from the Mediterranean Basin to the continental precipitation from 1980 onwards: a Lagrangian analysis, *Journal of the Black Sea / Mediterranean Environment*, Special Issue: 66-69
- [58] L. Gimeno, M. Vázquez, R. Nieto, R.M. Trigo (2015) Atmospheric moisture transport: the bridge between ocean evaporation and Arctic ice melting, *Earth System Dynamics*, pages: 583-589, vol: 2, doi:10.5194/esd-6-583-2015
- [57] S.M. Vicente-Serrano, R. Garcia-Herrera, D. Barriopedro, C. Azorin-Molina, J.I. Lopez-Moreno, N. Martín-Hernández, M. Tomás-Burguera, L. Gimeno, R. Nieto (2015) The Westerly Index as complementary indicator of the North Atlantic oscillation in explaining drought variability across Europe, *Climate Dynamics*, Pages 1-19, DOI 10.1007/s00382-015-2875-8
- [56] R. Castillo, R. Nieto, A. Drumond, L. Gimeno (2014) Estimating the temporal domain when the discount of the net evaporation term affects the resulting net precipitation pattern in the moisture budget using a 3-D Lagrangian approach, *PLoS ONE*, 9(6), doi:10.1371/journal.pone.0099046
- [55] R. Nieto, R. Castillo, A. Drumond, L. Gimeno (2014) A catalog of moisture sources for continental climatic regions, *Water Resources Research*, 50, doi:10.1002/2013WR013901
- [54] R. Nieto, R. Castillo, A. Drumond (2014) The modulation of oceanic moisture transport by the hemispheric annular modes, *Frontiers in Earth Science*, 2:11. doi: 10.3389/feart.2014.00011
- [53] L. Gimeno, R. Nieto, M. Vazquez, D. Lavers (2014) Atmospheric rivers: a mini-review. *Frontiers in Earth Sciences*; doi: 10.3389/feart.2014.00002
- [52] R. Castillo, R. Nieto, A. Drumond, L. Gimeno (2014) The role of the ENSO cycle in the modulation of moisture transport from major oceanic moisture sources. *Water Resources Research*, doi: 10.1002/2013WR013900
- [51] A. Drumond, J. Marengo, T. Ambrizzi, R. Nieto, L. Moreira, L. Gimeno (2014) The role of Amazon Basin moisture on the atmospheric branch of the hydrological cycle: a Lagrangian analysis. *Hydrology and Earth System Sciences, Discuss.*; doi:10.5194/hessd-11-1023-2014. Vol 11, 1023-1046
- [50] R.M. Trigo, J.A. Añel, D. Barriopedro, R. Garcia-Herrera, L. Gimeno, R. Nieto, R. Castillo, M.R. Allen, N. Massey (2013) The record winter drought of 2011-2012 in the Iberian Peninsula. *Bulletin of the American Meteorological Society*, Soc. 94(9), S41-S45
- [49] L. Gimeno, R. Nieto, A. Drumond, R. Castillo, R.M. Trigo (2013) Influence of the intensification of the major oceanic moisture sources on continental precipitation. *Geophysical Research Letters* ; doi:10.1002/grl.50338
- [48] L. Gimeno, A. Stohl, R.M. Trigo, F. Domínguez, K. Yoshimura, L. Yu, A. Drumond, A.M. Durán-Quesada, R. Nieto (2012) Oceanic and Terrestrial Sources of Continental Precipitation. *Reviews of Geophysics* ; doi:10.1029/2012RG000389

- [47] S.M. Vicente-Serrano, S. Bergueria, L. Gimeno, L. Eklundh, G. Giuliani, D. Weston, A. El Kenawy, J.I. Lopez-Moreno, R. Nieto, T. Ayenew, D. Konte, J. Ardo, G.G.S. Pegram (2012) Challenges for mitigating drought impacts in Africa: the potential use of geospatial data and drought information systems. *Applied Geography Journal* 34, 471-486
- [46] A. Drumond, R. Nieto, E. Hernández, L. Gimeno (2011) A Lagrangian analysis of the variation in moisture sources related to drier and wetter conditions in regions around the Mediterranean Basin. *Natural Hazards and Earth System*; doi: 10.5194/nhess-11-2307-2011
- [45] A. Drumond, R. Nieto, L. Gimeno (2001) A preliminary analysis of the sources of moisture for China and their variations during drier and wetter conditions in 2000-2004: a Lagrangian approach. *Climate Research*; doi: 10.3354/cr01043
- [44] S.M. Vicente-Serrano, J.I. López-Moreno, L. Gimeno, R. Nieto, E. Morán-Tejada, J. Lorenzo-Lacruz, S. Beguería, C. Azorín-Molina (2011) A multi-scalar global evaluation of the impact of ENSO on droughts. *Journal of Geophysical Research*, doi:10.1029/2011JD016039
- [43] L. Gimeno, R. Nieto, A. Drumond, A.M. Durán-Quesada, A. Stohl, H. Sodemann, R.M. Trigo (2011) A close look at oceanic sources of continental precipitation. *EOS* 92(23), 193-194
- [42] A. Drumond, L. Gimeno, R. Nieto (2011) On the contribution of the Tropical Western Hemisphere Warm Pool source of moisture to the Northern Hemisphere precipitation through a Lagrangian approach. *Journal of Geophysical Research*; doi:10.1029/2010JD015397
- [41] M. Gómez-Gesteira, L. Gimeno, M. de Castro, M.N. Lorenzo, I. Álvarez, R. Nieto, A.J.C. Crespo, A.M. Ramos, J.J. Taboada, F.E. Santo, D. Barriopedro, I.F. Trigo (2011) The state of climate in NW Iberia. *Climate Research. Special Issue 27: Regional climate change in the northwestern Iberian Peninsula*; doi: 10.3354/cr00967
- [40] A. Drumond, R. Nieto, L. Gimeno, S.M. Vicente-Serrano, J.I. López-Moreno (2011) Characterization of the atmospheric component of the winter hydrological cycle on the Galicia/North of Portugal Euro-region: a Lagrangian approach. *Climate Research. Special Issue 27: Regional climate change in the NW Iberian Peninsula*; doi: 10.3354/cr00987
- [39] S.M. Vicente-Serrano, J.I. López-Moreno, A. Drumond, L. Gimeno, R. Nieto, E. Morán-Tejada, J. Lorenzo-Lacruz, S. Beguería, J. Zabalza (2011) Effects of warming processes on droughts and water resources in the NW Iberian Peninsula (1930-2006). *Climate Research. Special Issue 27: Regional climate change in the NW Iberian Peninsula*; doi: 10.3354/cr01002.
- (38) P. Sousa, R. Trigo, P. Aizpurua, R. Nieto, L. Gimeno and R. Garcia-Herrera (2010) Trends and extremes of drought indices throughout the 20th century in the Mediterranean. *Natural Hazards and Earth System Sciences*, doi:10.5194/nhess-11-33-2011
- (37) Drumond, A., Nieto, R., Gimeno, L. and Ambrizzi, T. (2010) A Lagrangian identification of the main sources of moisture affecting Northeastern Brazil during its pre-rainy and rainy seasons. *PlosOne* doi:10.1371/journal.pone.0011205
- (36) M.S. Reboita, R. Nieto, L. Gimeno, R. Porfírio da Rocha, T. Ambrizzi, R. Garreaud and L. F. Krüger (2010) Climatological Features of Cutoff Low Systems in the Southern Hemisphere. *Journal of Geophysical Research*, doi:10.1029/2009JD013251
- (35) Gimeno, L. Nieto, R., Trigo, R.M., Vicente, S. and López-Moreno (2010) Where does the Iberian Peninsula moisture come from? An answer based on a Lagrangian approach. *Journal of Hydrometeorology*; doi: 10.1175/2009JHM1182.1.

- (34) Nieto R. , Durán-Quesada A.M. and Gimeno L. (2010) Major sources of moisture over Antarctic ice-core sites identified through a Lagrangian approach. *Climate Research* 41, 45-49; doi: 10.3354/cr00842.
- (33) Durán-Quesada A.M., Gimeno L., Amador J.A. and Nieto R (2010) A Lagrangian approach to moisture sources for Central America: Part I. Moisture sources identification. *Journal of Geophysical Research* 15, D05103, doi: 10.1029/2009JD012455.
- (32) J.I. López-Moreno, S.M. Vicente-Serrano, L. Gimeno, R. Nieto (2009) Stability of the seasonal distribution of precipitation in the Mediterranean region: observations since 1950 and projections for the 21th century. *Geophysical Research Letters* 36, L10703; doi:10.1029/2009GL037956.
- (31) L. de la Torre, R. Nieto, et al. 2008. A climatology based on reanalysis of baroclinic developmental regions in the extratropical NH. *Annals of the New York Academy of Science* 1146, 235-255, doi: 10.1196/annals.1446.017
- (30) Nieto R et al. 2008. Identification and Climatology of COLs near the Tropopause. *ANYAS* 1146, 256-290, doi: 10.1196/annals.1446.016
- (29) Casas MC, Rodríguez, R., Nieto R et al. 2008. The estimation of probable maximum precipitation: Catalonia. *Annals of the New York Academy of Sciences (ANYAS)* 1146, 291-302.
- (28) Delgado G, Toledo-Machado LA, Angelis CF, Bottino MJ, Redaño A, Lorente J, Gimeno L and Nieto R. 2008. Basis for a rainfall estimation technique using IR-VIS cloud classification and parameters over the life cycle of mesoscale convective systems. *J. Applied Meteorology and Climatology* 47, 1500-1517.
- (27) Nieto R et al 2008. Dynamic identification of moisture sources in the Orinoco Basin in Equatorial South America. *HSJ* **53(3)**, 602-617.
- (26) Drumond A, Nieto R. et al. 2008. A Lagrangian identification of major sources of moisture over central Brazil and La Plata basin. *JGR* doi:10.1029/2007JD009547
- (25) Nieto R, et al. 2008. Potential outflows pathways for Iberian atmospheric middle-lived pollution. *Open Atmos. Sc. Journal* 2, 18-22.
- (24) Gimeno L, Gallego D, de la Torre L, Nieto R, et al. 2007. A new diagnostic of Stratospheric Polar Vortices, the variability of the stratospheric polar vortex. *JASTP*; doi:10.1016/j.jastp.2007.07.013.
- (23) Delgado G, Redaño A, Lorente J, Nieto R, et al. 2007. Cloud Cover Analysis Associated to COLs using Meteosat Imagery. *MAP* **96**, 141-157.
- (22) Nieto R, et al. 2007. Analysis of the precipitation and cloudiness associated with COLs occurrence in the Iberian Peninsula. *MAP* **96**, 103-119.
- (21) Nieto R, et al. 2007. Interannual variability of COLs over the European sector: the role of blocking and the northern hemisphere circulation modes. *MAP* **96**, 85-101; doi:10.1007/s00703-006-0222-7
- (20) Gimeno L, Nieto R & Trigo R. 2007. Decay of the Northern Hemisphere stratospheric polar vortex and the occurrence of COLs. *MAP* **96**, 21-28.
- (19) J.A. Añel, J. Antuña, L. la Torre, R. Nieto et al 2007. Global statistics of multiple tropopauses from the IGRA database. *GRL* **34**, L06709, 5 pp.
- (18) de la Torre L, Gimeno L, Añel JA and Nieto R. 2007. The role of the solar cycle on the NAO signature in Northern Hemisphere surface temperature. *Advances in Atmospheric Sciences* **24(2)**, 191-198; doi: 10.1007/s00376-007-0191-x

- (17) Nieto R et al. 2007. Identification of major sources of moisture & precipitation over Iceland. *Met. Zeitschrift* **16 (11)**, 37-44.
- (16) Nieto R, et al 2007. A Lagrangian identification of major sources of Sahel moisture. *GRL* **33**, L18707; 6pp.
- (15) Añel JA, Gimeno L, de la Torre L and Nieto R. 2006. Changes in the tropopause height for the Eurasian region from CARDS radiosonde data. *Naturwissenschaften* **93**, 603-609; doi 10.1007/s00114-006-0147-5
- (14) Nieto R & Gimeno L. 2006. Atmospheric transport towards the Iberian Peninsula in the range 3-10 days. *TSWJ* **6**, 1041-1047.
- (13) Torre L, Gimeno L, Añel J & Nieto R. 2006. Study of troposphere-stratosphere coupling through NAM. *JASTP* **68**, 989-998.
- (12) de la Torre L., Gimeno L., Añel J.A. and Nieto R. 2006. Solar Influence on the NAM Spatial Structure and QBO modulation. *Advances in Space Research* **37**, 1635-1639; doi:10.1016/j.asr.2005.05.018
- (11) R. Nieto, et al. 2005. Climatology of cut-off lows in the Northern Hemisphere. *BAMS* **86(11)**, 1551-1552.
- (10) M Tesouro, L Torre, R Nieto et al. 2005. Weekly cycle in NCAR-NCEP reanalysis surface T data. *Atmos.* **18**, 205-209.
- (9) R. Nieto, et al. 2005. Climatological features of COLs in the Northern Hemisphere. *Journal of Climate* **18**, 2805-2823.
- (8) NO García, L Gimeno, L de la Torre, R Nieto et al. 2005. NAO and precipitation in Galicia (Spain). *Atmósfera* **18(1)**, 25-32.
- (7) M Tesouro, L Gimeno, R Nieto et al. 2005. Interannual variability of the annual cycle of temperature over Northern Africa. *Studia Geophysica et Geodaetica* **45**, 141-151.
- (6) Torre L, Ribera P, Gimeno L, Añel J & Nieto R. 2004. *Física Tierra* **16**, 73-82.
- (5) P Ribera, D Gallego, L Gimeno, JF Pérez, R García-Herrera, E Hernández, L de la Torre, R Nieto and N Calvo. 2004. The use of equivalent temperature to analyse climate variability. *Studia Geophysica et Geodaetica* **48**, 459-468
- (4) P. Ribera, L. Gimeno, D. Gallego, R. García, E. Hernández, L. Torre, R. Nieto and N. Calvo. 2004. Two approaches for determining extreme years of global atmospheric temperature. *Studia Geophysica et Geodaetica* **48**, 447-458.
- (3) L. Gimeno, Ó. Vidal, R. Nieto, et al. 2003. Impact of the extratropical dynamical modes upon troposphere temperature using an approach based on advection of temperature. *International Journal of Climatology* **23**, 399-404
- (2) L. Gimeno, L. Torre, R. Nieto et al. 2003. Changes in the relationship NAO - NH Temperature due to solar activity. *EPSL* **206**, 15-20.
- (1) L. Gimeno, P. Ribera, R. Nieto, et al. 2002. Imprints of the NAO on four unusual atmospheric parameters. *EPSL* **202**, 677-692.

BOOK CHAPTERS

[11] Gimeno L., Nieto R., Castillo R., Vázquez M., Drumond A. (2014) Quantifying the importance of the Mediterranean Sea as a moisture source for extreme precipitation and flooding episodes, in 12 International Conference of Meteorology, Climatology and Physics of the Atmosphere 1, 344-348. By Kanakidou Maria, Mihalopoulos Nikolaos and Nastos Panagiotis, Edit.: Crete University Press. I.S.B.N.:978-960-524-430-9

[10] Nieto R., Gimeno L., Castillo R., Vázquez M., Drumond A. (2014) Deficit in the moisture transport from the Mediterranean Sea and associated droughts in the surrounding continental areas, in 12 International Conference of Meteorology, Climatology and Physics of the Atmosphere 2, 306-311. By Kanakidou Maria, Mihalopoulos Nikolaos and Nastos Panagiotis, Edit.: Crete University Press. I.S.B.N.: 978-960-524-430-9

[9] L. Gimeno, R. Nieto, A. Drumond, A.M. Durán-Quesada (2013) Ocean evaporation and precipitation, in Earth System Monitoring. Selected Entries from the Encyclopedia of Sustainability Science and Technology 1, 291-318. By John Orcutt, Edit.: Springer New York. DOI: 10.1007/978-1-4614-5684-1. I.S.B.N.: 978-1-4614-5683-4

[8] U. Ulbrich, E. Xoplaki, S. Dobricic, R. García-Herrera, P. Lionello, M. Adani, M. Baldi, D. Barriopedro, P. Coccimiglio, G. Dalu, D. Efthymiadis, M. Gaetani, M. Barbara Galati, L. Gimeno, C.M. Goodess, P.D. Jones, F.G. Kuglitsch, G.C. Leckebusch, J. Luterbacher, M. Marcos-Moreno, A. Mariotti, R. Nieto, K.M. Nissen, D. Pettenuzzo, N. Pinardi, C. Pino, A.G.P. Shaw, P. Sousa, A. Toreti, R.M. Trigo, M. Tsimplis (2013) Past and Current Climate Changes in the Mediterranean Region, in Regional Assessment of Climate Change in the Mediterranean (RACCM), Advances in Global Change Research 50, 9-51. By A. Navarra, L. Tubiana, Edit.: Springer, Dordrecht, The Netherlands. DOI: 10.1007/978-94-007-5781-3_3. I.S.B.N.: 978-94-007-5768-4

[7] Gualdi S., S. Somot, W. May, S. Castellari, M. Déqué, M. Adani, V. Artale, A. Bellucci, J. S. Breitgand, A. Carillo, R. Cornes, A. Dell’Aquila, C. Dubois, D. Efthymiadis, A. Elizalde, L. Gimeno, C. M. Goodess, A. Harzallah, S. O. Krichak, F. G. Kuglitsch, G. C. Leckebusch, B. L’Heveder, L. Li, P. Lionello, J. Luterbacher, A. Mariotti, R. Nieto, K. M. Nissen, P. Oddo, P. Ruti, A. Sanna, G. Sannino, E. Scoccimarro, F. Sevault, M. V. Struglia, A. Toreti, U. Ulbrich and E. Xoplaki (2013) Future Climate Projections, in Regional Assessment of Climate Change in the Mediterranean (RACCM), Advances in Global Change Research 50, 53-118. By A. Navarra, L. Tubiana, Edit.: Springer, Dordrecht, The Netherlands. DOI: 10.1007/978-94-007-5781-3_3. I.S.B.N.: 978-94-007-5768-4

[6] M.L.R. Liberato, A.M. Ramos, R.M. Trigo, I.F. Trigo, A.M. Durán-Quesada, R. Nieto, L. Gimeno (2012) Moisture Sources and Large-Scale Dynamics Associated With a Flash Flood Event, in Lagrangian Modeling of the Atmosphere, Geophysical Monograph Series 1, 111-126. By J. Lin, D. Brunner, C. Gerbig, A. Stohl, A. Luhar and P. Webley, Edit.: American Geophysical Union (AGU), Washington, D. C., USA. doi: 10.1029/2012GM001244. I.S.S.N.: 9780875904900

[5] E. Xoplaki, R.M. Trigo, R. García-Herrera, D. Barriopedro, F. D’Andrea, E.m. Fisher, L. Gimeno, C. Gouveia, E. Hernández, F.G. Kuglitsch, A. Mariotti, R. Nieto, J.G. Pinto, D. Pozo-Vázquez, H. Saaroni, A. Toreti, I.F. Trigo, S.M. Vicente-Serrano, P. Yiou, B. Ziv (2012) Large-scale atmospheric circulation driving extreme climate events in the Mediterranean and related impacts, in The Climate of the Mediterranean Region – From the past to the future, 1, 347-417. By P. Lionello, Edit.: Elsevier, I.S.B.N.: 978-0-12-416042-2

[4] A.M. Durán-Quesada, M. Reboita, L. Gimeno, R. Nieto (2010) The role of the tropics in the global water cycle: precipitation and moisture transport in tropical America, in Proceedings of Earth Observation and Water Cycle Science 1, 1-8. Edit.: ESA Communication Production Office I.S.B.N.: 978-92-9221-238-4

[3] R. Nieto, L. Gimeno, A. Drumond, E. Hernandez (2010) Contribution of the Mediterranean Sea in the atmospheric moisture of adjacent and remote regions from a Lagrangian approach, in Proceedings of the 5th IASME/WSEAS Int. conf. on water resources, hydraulics & hydrology / Proceedings of the 4th IASME/WSEAS int. conf. on geology and seismology-water and geosciences, 1, 203-207. Edit.: World scientific and engineering acad and soc, ag. I.S.B.N.: 978-960-474-160-1

[2] M. Reboita, R. Nieto, L. Gimeno, R. da Rocha, T. Ambrizzi (2009) Cutoff-Low systems: Comparison NCEP versus RegCM3, in 2nd International Lund RCM Workshop. 21st Century Challenges in Regional-scale Climate Modelling. Workshop Proceedings, 41, 148-149. Edit.: International Baltex Secretariat, WCRP GEWEX. I.S.B.N.: 1681-6471

[1] D. Gallego, R. Nieto, L. Gimeno, P. Ribera (2008) Identificación dinámica de las fuentes de humedad en la cuenca del Orinoco in Humedales de América Latina y el Caribe, Edit.: Print & Service, I.S.B.N.: 978-987-96413-2-3