# Lluís Fita Borrell

**Contact information**

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CV-electronic version: http://www.xn--llusfb-5va.cat/curriculum/
**ORCID:** 0000-0002-6046-4806, **ResearcherID:** F-8749-2011, **Scopus Author ID:** 11940390700

## RESEARCH AREAS

Mediterranean Meteorology, Mesoscale, Intense Cyclogenesis, Numerical Simulations, Numerical Analysis Technics, Sensitivities, Data Assimilation, Medicanes, Tropical-like Systems, Regional Climate Modelling, GRID Environment, Model development, Model coupling

## EDUCATION

| | | |
|---|---|---|
| June 2008 | **Ph.D. in Experimental Sciences and Technology (Physics)** | U. de les Illes Balears |
| June 2006 | **M. Sc. in Physics** | U. de les Illes Balears |
| Mar. 2002 | **B.A. in Physical Sciences** | U. de Barcelona |

## SPECIALIZED EDUCATION

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|---|---|---|
| Nov. 2010 (6 hours) | **Parallel Computing RES Users' Seminar** | U. Cantabria, Spain |
| July 2010 (30 hours) | University Course of Specialization (translation) **PHP & MySQL: "OPEN SOURCE" SOLUTIONS FOR WEB PORTALS FOR SMALL COMPANIES** | U. Cantabria, Spain |
| May 2004 (35 hours) | **Gridification Week** | CETA-CIEMAT, Spain |
| May 2004 (30 hours) | **Mediterranean School on Mesoscale Meteorology** | Alghero, Sardegna, Italy |
| July 2002 | **C.A.P. (Pedagogical Competence Certificate)** (requirement to teach in Spanish high-schools) | U. Politècnica de Catalunya, Spain |

## WORK EXPERIENCE

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|---|---|---|
| April 2017 - present | **Adjoint researcher at CONICET**[a] | Centro de Investigaciones del Mar y la Atmósfera (CIMA[b]), CONICET, UBA[c], Buenos Aires, Argentina |
| Nov. 2015 - April 2017 | **Post-Doctoral contract: HEAT project** | Laboratoire de Météorologie Dynamique (LMD[d]), UPMC, CNRS[e] Paliseau, France |
| May 2015 - Oct. 2015 | **Post-Doctoral contract: DDX** | École Polytechnique (IPP[f]), Palaiseau, France |
| Jun. 2013 - May 2015 | **Post-Doctoral contract: REMEMBER project** | Laboratoire de Météorologie Dynamique, UPMC[g], CNRS Paris, France |
| Jan. 2012 - Mai 2013 | **Post-Doctoral contract: NARCliM project** | Climate Change Research Centre[h], UNSW[i], Sydney, Australia |
| Feb. 2009 - Dec. 2011 | **Post-Doctoral contract: ESCENA project** | U. Cantabria[j], Santander, Spain |
| 2001-2004 | **Multiple duties on 'Gassol, S.A.'** (textil company) | Salt, Spain |
| Summer 1999 | 6 weeks student-internship by **Potsdam Universität, Insitut für Physic, Dpt. No-linear dynamics** | Potsdam, Germany |
| Summer 1998 | 5 weeks internship by **Bayer Faser GmBH** | Dormagen, Germany |

[a]*'Consejo Nacional de Investigaciones Científicas y Técnicas'* (CONICET, http://www.conicet.gov.ar/)
[b]*'Centro de Investigaciones del Mar y la Atmósfera'* (CIMA, http://www.cima.fcen.uba.ar/)
[c]*'Universidad de Buenos Aires'* (UBA, https://www.uba.ar/)
[d]*'Laboratoire de Météorologie Dynamique'* (LMD, http://www.lmd.jussieu.fr)
[e]*'Centre national de la recherche scientifique'* (CNRS, https://www.cnrs.fr/)
[f]*'Institut Polytechnique de Paris'* (IPP, https://www.ip-paris.fr/)
[g]*'Sorbonne Université - Campus Pierre et Marie Curie'* (UPMC, https://www.sorbonne-universite.fr/)
[h]*'Climate Change Research Centre'* (CCRC, https://www.unsw.edu.au/research/ccrc)
[i]*'University of New South Wales - Sydney'* (UNSW, https://www.unsw.edu.au/homepage/)
[j]*'Universidad de Cantabria'* (UC, https://web.unican.es/)

# Teaching

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|---|---|---|
| 2023 July 17th-28th | PhD course: **Modelado de Fluidos Geofísicos** | DCAO[a], UBA-FCEyN[b], Argentina |
| 2023 - | director of PhD thesis: **SUrAMBA: Simulado climático Urbano en el Área Metropolitana de Buenos Aires**. Student: Luís E. Muñoz Pabón | DCAO |
| 2021 - | co-director of PhD thesis: **Estudio de altas concentraciones de contaminantes atmosféricos en el Área Metropolitana de Buenos Aires mediante el uso de modelos de última generación**. Student: Solange Luque | DCAO |
| 2021 July 5th-16th | PhD course: **Modelado de Fluidos Geofísicos** | DCAO, UBA-FCEyN, Argentina |
| 2019 July 13th-26th | PhD course: **Land-atmosphere interaction and their simulation**[c] | DCAO, UBA-FCEyN, Argentina |
| 2017 June 23rd | 1 hour seminar: **Uses and characteristics of the modeling of the atmosphere**, within grade course of Meteorology: *Dynamical climatology*, and PhD course: *Physical climatology* | DCAO, classroom 8, UBA-FCEyN, Argentina |
| 2017 July 17-28 | **UMI-IFAECI Fortran workshop for geophysical fluid dynamics simulation** [d]: general introduction to Fortran-90, parallel programming, model code management | DCAO, classroom 5, UBA-FCEyN, Argentina |
| 2017 - 2022 | assistant PhD director: **Análisis numérico a alta resolución de la interacción suelo - río- planicie de inundación - atmósfera de la Cuenca de la Plata**. Student: Anthony Schrapffer | DCAO |
| 2016 March 25th | **IPSL BootCamp** [e] multiple introductions; courses given: bash, netcdf & python (no-official course) | IPSL[f], IDRIS teaching room, France |
| 2015 April 8th | **Shan's python course** [g] 1-hour short introduction to python (no-official course) | LMD[h], UPMC, Paris, France |
| 2012 Nov 20th | Introduction to the CoE vacational scholarships at UNSW: **Introduction: Climatology of sounding data over Australia** | UNSW, Sydney, Australia |
| Summer 2012 | **Supervisor of one CoE vacational scholarships at UNSW, student Scott Liles** | CCRC, UNSW, Sydney, Australia |
| May-June 2012 | **Lluís' CCRC Fortran course** [i]. 4 introductory sessions (1-hour) to Fortran 90/95 (no-official course) | CCRC, UNSW, Sydney, Australia |
| Summer 2012 | **Substitution on a lecture (1h) of the course CLIM2001/PHYS2801**, Modelling the Climate System | UNSW, Sydney, Australia |
| Fall 2009 | Instructor **Fundamentals of Computer Science Course** (undergraduate course on Fortran language, 30 hous) | UC, Santander, Spain |

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[a]*'Departamento de Ciencias de la Atmósfera y los Océanos'* (DCAO, http://www.at.fcen.uba.ar/)

[b]*'Facultad de Ciencias Exactas y Naturales'* (FCEN, https://exactas.uba.ar/)

[c]http://www.cima.fcen.uba.ar/UMI/wrk/modelado-2019.php

[d]http://www.cima.fcen.uba.ar/UMI/wrk/fortran90.php

[e]https://forge.ipsl.jussieu.fr/igcmg_doc/wiki/Train

[f]*'Institut Pierre-Simon Laplace'* (IPSL, https://www.ipsl.fr/)

[g]http://www.xn--llusfb-5va.cat/python/ShanCourse/PythonCourse.html

[h]Laboratoire de Météorologie Dynamique

[i]http://www.xn--llusfb-5va.cat/fortran/CCRCcourse/FortranCCRCcourse.html

## Participation in RESEARCH & DEVELOPMENT PROJECTS

(translations)

| | | |
|---|---|---|
| April 2022-present | GEWEX[a] program **'A Regional Hydroclimate Initiative for the Andes'** (ANDEX (GEWEX)[b]) | No funding |
| April 2021-present | **CORDEX Flag Ship Pilot Study Europe: URBan environments and Regional Climate Change** | No funding |
| June 2017-2022 | **CORDEX Flag Ship Pilot Study on explicit convection in the Alps** | No funding |
| June 2015-present | **HEAT** | Funded by French government |
| June 2013-May 2015 | **REMEMBER** | Funded by French government |
| Jan. 2013-May 2013 | **The NARCliM (NSW / ACT Regional Climate Modelling) project** | Funded by different NSW and ACT government agencies |
| Jan. 2011-Dec. 2013 | **Distributed regional climate simulation and analysis contribution to CORDEX throughout WRF4G application (CORWES)** | Funded by Spanish government |
| Dec. 2008-Dec. 2011 | **Production of regional scenarios of climate change in Spain with high resolution models (ESCENA)** | Funded by Spanish government |
| Dec. 2007-Dec. 2010 | **Regional scenarios of climate change in Cantabria** | Funded by Regional government |
| Jan. 2005-Dec. 2007 | **Design of dynamic-statistical techniques to forecast precipitation and Mediterranean cyclones (PRECIOSO)** | Funded by Spanish government |
| Jan. 2002-Dec. 2004 | **Study of the structure and predictability of Mediterranean cyclones that produce severe weather events: Contribution of Balearic Islands to the MEDEX project of WMO (MEDEXIB)** | Funded by Spanish government |

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[a]*'The Global Energy and Water Exchanges'*, (GEWEX, https://www.gewex.org/)

[b]*'A Regional Hydroclimate Initiative for the Andes'* (ANDEX (GEWEX), https://www.gewex.org/project/andex/)

## Successful application to RESEARCH & DEVELOPMENT PROGRAMS

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|---|---|---|
| *2023-2024* | CLIMAT AMSUD: *Highres* (22-CLIMAT-05) | 19000 euro |
| *2023-2027* | Beca doctoral CONICET: *SUrAMBA: Simulado climático Urbano en el Área Metropolitana de Buenos Aires*, CONICET | |
| *2023* | IRD: *'Demande d'Equipament'* | 10000 euro |
| *2023-2025* | INSU-LEFE: *'Etude des interactions villes-climat à l'aide de la modélisation climatique urbaine: développement et analyse sur Paris et Buenos Aires "INTERVILLE-CLIM"'*, CNRS | 37600 euro |
| *2022-2026* | *Grupo de Investigación internacional para el Desarrollo (GDRI)*, IRN-ANDES-C2H[a], IRD | 15000 euro/año |
| *2021-2022* | CLIMAT AMSUD: *ACE-Amazon* (21-CLIMAT-01) | 17100 euro |
| *2020-2022* | INSU-LEFE: *PANTANAL: Impacts of tropical floodplains on the land-atmosphere interaction; the Pantanal case* (ref. 12962) | 19800 euro |
| *Mar. 2019 - Feb. 2023* | PICT *'Estudio de eventos extremos de contaminación atmosférica por dióxido de nitrógeno en el área metropolitana de Buenos Aires'*, FONCyT - MINCyT | |
| *Mar. 2019 - Feb. 2023* | PICT *'Interacción suelo - río - inundación - atmósfera en la Cuenca del Plata: modelado a alta resolución y reducción de incertidumbre observacional del ciclo de agua'*, FONCyT - MINCyT | |
| *2019-2021* | MINCYT-ECOS Sud: *Implementación y testes de la plataforma RegIPSL en Sud américa: retos y oportunidades* (A18D04) | 240,000 pesos |

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[a]International Research Network ANDES- Clima, Criósfera Hidrósfera, https://sites.google.com/view/andes-c2h/

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| *2017-present* | *AmSud[a]: Tropical South America: hydrology in a land-atmosphere coupled system* | Computational French Resources (GENCI[b]) total: 14,800.000 horas de cpu |
| *2016* | **MGClimDeX: Martinique & Guadeloupe Climate Dynamic downscaling eXperiment (t2016017593)** | French National HPC resources (DARI) founds: 1,000.000 cpu hours |
| *Oct. 2015-2016* | **MGClimDeX: Martinique & Guadeloupe Climate Dynamic downscaling eXperiment (MOM - BOP 123)** | Funded by France government founds: 25.000 EUR |
| *Jan. 2012-Dec. 2014* | **Adaptation of WRF model to a GRID infrastructure and probe of use for a wind hindcast in Europe (CGL2011-28864)** | Funded by Spanish government founds: 145.200 EUR |
| *Jan. 2011-Dec. 2013* | **CORWES: Coordinated regional climate downscaling experiment using WRF: a contribution to the CORDEX initiative by the spanish WRF community(CGL2010-22158-C02-01)** | Funded by Spanish government founds: 85.305 EUR |

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[a]https://gitlab.in2p3.fr/ipsl/lmd/intro/regipsl/regipsl/-/wikis/AmSud

[b]*'Grand Équipement National de Calcul Intensif'* (GENCI, https://www.genci.fr/fr)

## PUBLICATIONS

**Peer review Journals**

F. Dominguez, R. Rasmussen, C. Liu, K. Ikeda, A. Prein, A. Varble, P. A. Arias, J. Bacmeister, M. L. Bettolli, P. Callaghan, L. M. V. Carvalho, C. L. Castro, F. Chen, D. Chug, K. P. (Sun) Chun, A. Dai, L. Danaila, R. Porfírio da Rocha, E. de Lima Nascimento, E. Dougherty, J. Dudhia, T. Eidhammer, Z. Feng, **L. Fita**, R. Fu, J. Giles, H. Gilmour, K. Halladay, Y. Huang, A. M. Iza Wong, M. Á. Lagos-Zúñiga, C. Jones, J. Llamocca, M. Llopart, J. A. Martinez, J. C. Martinez, J. R. Minder, M. Morrison, Z. L. Moon, Y. Mu, R. B. Neale, K. M. Núñez Ocasio, S. Pal, E. Potter, G. Poveda, F. Puhales, K. L. Rasmussen, A. Rehbein, R. Rios-Berrios, C. Bayu Risanto, A. Rosales, L. Scaff, A. Seimon, M. Somos-Valenzuela, Y. Tian, P. Van Oevelen, D. Veloso-Aguila, L. Xue and T. Schneider, (2023): *Advancing South American Water and Climate Science Through Multi-Decadal Convection-Permitting Modeling*, Bull. Amer. Meteor. Soc., , DOI: 10.1175/BAMS-D-22-0226.1

A. Schrapffer, J. Polcher, A. Sörensson and **L. Fita**, (2023): *Introducing a new floodplain scheme in ORCHIDEE (version 7885): validation and evaluation over the Pantanal wetlands*, EGUsphere, , 1-53 DOI: 10.5194/egusphere-2023-549

S. Wongchuig, J. C. Espinoza, T. Condom, C. Junquas, J. P. Sierra, **L. Fita**, A. Sörensson and J. Polcher, (2023): *Changes in the surface and atmospheric water budget due to projected Amazon deforestation: Lessons from a fully coupled model simulation*, Journal of Hydrology, **625**, 130082 DOI: 10.1016/j.jhydrol.2023.130082

S. Luque, **L. Fita** and A L. Pineda Rojas, (2023): *Performance evaluation of the WRF model under different physical schemes for air quality purposes in Buenos Aires, Argentina*, Atmósfera, **38**, 235-262 DOI: 10.20937/ATM.5325

J. P Sierra, J. C. Espinoza, C. Junquas, S. Wongchuig, J. Polcher, V. Moron, **L. Fita**, P. A. Arias, A. Schrapffer and R. Pennel, (2023): *Impacts of land-surface heterogeneities and Amazonian deforestation on the wet season onset in southern Amazon*, Clim. Dyn., , DOI: 10.1007/s00382-023-06835-2

M. T. Ha, S. Bastin, P. Drobinski, **L. Fita**, J. Polcher, O. Bock, M. Chiriaco, D. Belušić, C. Caillaud, A .Dobler, J. Fernández, K. Goergen, Ø. Hodnebrog, S. Kartsios, E. Katragkou, A. Lavin-Gullon, T. Lorenz, J. Milovac, H.-J. Panitz, S. Sobolowski, H. Truhetz, K. Warrach-Sagi and V. Wulfmeyer, (2022): *Precipitation frequency in Med-CORDEX and EURO-CORDEX ensembles from 0.44° to convection-permitting resolution: impact of model resolution and convection representation*, Clim. Dyn., **2022**, DOI: 10.1007/s00382-022-06594-6

C. Tovar, A. F. Carril, A. G. Gutiérrez, A. Ahrends, **L. Fita**, P. Zaninelli, P. Flombaum, A. M. Abarzúa, D. Alarcón, V. Aschero, S. Báez, A. Barros, J. Carilla, M. E. Ferrero, S. G. Flantua, P. Gonzáles, C. G. Menéndez, O. A. Pérez-Escobar, A. Pauchard, R. C. Ruscica, T. Särkinen, A. A. Sörensson, A. Srur, R. Villalba, P. M. Hollingsworth, ((2022): *Understanding climate change impacts on biome and plant distributions in the Andes: Challenges and opportunities*, Journal of Biogeography, **00**, 1-23 DOI: 10.1111/jbi.14389

N. K. Shahi, J. Polcher, S. Bastin, R. Pennel and **L. Fita**, (2022): *Assessment of the spatio-temporal variability of the added value on precipitation of convection-permitting simulation over the Iberian Peninsula using the RegIPSL regional earth system model*, Clim. Dyn., , DOI: 10.1007/s00382-022-06138-y

N. Ban, C. Caillaud, E. Coppola, E. Pichelli, S. Sobolowski, M. Adinolfi, B. Ahrens, A. Alias, I. Anders, S. Bastin, D. Beluš;ić, S. Berthou, E. Brisson, R. M. Cardoso, S. Chan O. B. Christensen, J. Fernández, **L. Fita**, T. Frisius, G. Gašparac, D. Giorgi, K. Goergen, J. E. Haugen, Ø Hodnebrog, S. Kartsios, E. Katragkou, E. J. Kendon, K. Keuler, A. Lavin-Gullon, G. Lenderink, D. Leutwyler, T. Lorenz, D. Maraun, P. Mercogliano, J. Milovac, H.-J. Panitz, M. Raffa, A. R. Remedio, C. Schär, P. M. M. Soares, L. Srnec, B. M Steensen, P. Stocchi, M. H. Tölle, H. Truhetz, J. Vergara-Temprado, H. de Vries, K. Warrach-Sagi,

V. Wulfmeyer and M. J. Zander, (2021): *The first multi-model ensemble of regional climate simulations at kilometer-scale resolution, part I: evaluation of precipitation*, Clim. Dyn., , DOI: 10.1007/s00382-021-05708-w

M. Alvarez Imaz, P. Salio, M.-E. Dillon,**L. Fita**, (2021): *The role of atmospheric forcings and WRF physical set-up on convective initiation over Córdoba, Argentina*, Atmos. Res., **250**, 105335 DOI: 10.1016/j.atmosres.2020.105335

T. Coronato, A. F. Carril, P. G. Zaninelli, J. Giles, R. Ruscica, M. Falco, A. Sörensson, **L. Fita**, (2020): *The impact of soil moisture–atmosphere coupling on daily maximum surface temperatures in Southeastern South America*, Clim. Dyn., **55**, 2543-2556 DOI: 10.1007/s00382-020-05399-9

A. Lavin-Gullon, J. Fernández, S. Bastin, R. M. Cardoso,**L. Fita**, T. M. Giannaros, K. Goergen, J. M. Gutiérrez, S. Kartsios, E. Katragkou, T. Lorenz, J. Milovac, P. M. M. Soares, S. Sobolowski and K. Warrach-Sagi, (2020): *Internal variability versus multi-physics uncertainty in a regional climate model*, Int. J. Climatol., **1-16**, DOI: 10.1002/joc.6717

A. Schrapffer, A. Sörensson, J. Polcher and **L. Fita**, (2020): *Benefits of representing floodplains in a Land Surface Model: Pantanal simulated with ORCHIDEE CMIP6 version*, Clim. Dyn., **55**, 1303-1323 DOI: 10.1007/s00382-020-05324-0

J. D. Pabón-Caicedo, P. A. Arias, A. F. Carril, J. C. Espinoza, **L. Fita Borrell**, K. Goubanova, W. Lavado-Casimiro, M. Masiokas, S. Solman, R. Villalba, (2020): *Observed and Projected Hydroclimate Changes in the Andes*, Frontiers in Earth Science, **8**, DOI: 10.3389/feart.2020.00061

C. G. Menéndez, J. Giles, R. Ruscica, P. Zaninelli, T. Coronato, M. Falco, A. Sörensson, **L. Fita**, A. Carril and L. Li, (2019): *Temperature variability and soil–atmosphere interaction in South America simulated by two regional climate models*, Clim. Dyn., **53**, 2919-2930 DOI: 10.1007/s00382-019-04668-6

**L. Fita**, J. Polcher, T. M. Giannaros, T. Lorenz, J. Milovac, G. Sofiadis, E. Katragkou and S. Bastin, (2019): *CORDEX-WRF v1.3: development of a module for the Weather Research and Forecasting (WRF) model to support the CORDEX community*, Geosci. Model Dev., **12**, 1029-1066 DOI: 10.5194/gmd-12-1029-2019

E. Flaounas, **L. Fita** K. Lagouvardos and V. Kotroni, (2019): *Heavy rainfall in Mediterranean cyclones, Part II: Water budget, precipitation efficiency and remote water sources*, Clim. Dyn., **53**, 2539-2555 DOI: 10.1007/s00382-019-04639-x

E. Coppola, S. Sobolowski, E. Pichelli, F. Raffaele, B. Ahrens, I. Anders, N. Ban, S. Bastin, M. Belda, D. Belusic, A. Caldas-Alvarez, R. M. Cardoso, S. Davolio, A. Dobler, J. Fernández, **L. Fita**, Q. Fumiere, F. Giorgi, K. Goergen, I. Guettler, T. Halenka, D. Heinzeller, O. Hodnebrog, D. Jacob, S. Kartsios, E. Katragkou, E. Kendon, S. Khodayar, H. Kunstmann, S. Knist, A. Lavín, P. Lind, T. Lorenz, D. Maraun, L. Marelle, E. van Meijgaard, J. Milovac, G. Myhre, H.-J. Panitz, M. Piazza, M. Raffa, T. Raub, B. Rockel, C. Schär, K. Sieck, P. M. M. Soares, S. Somot, L. Srnec, P. Stocchi, M. Tölle, H. Truhetz, R. Vautard, H. de Vries and K. Warrach-Sagi, (2018): *A first-of-its-kind multi-model convection permitting ensemble for investigating convective phenomena over Europe and the Mediterranean*, Clim. Dyn., **55**, 3-34 DOI: 10.1007/s00382-018-4521-8

F. Ji, J. P. Evans, A. Di Luca, N. Jiang, R. Olson, **L. Fita**, D. Argüeso, L. T.-C. Chang, Y. Scorgie, M. Riley, (2018): *Projected change in characteristics of near surface temperature inversions for southeast Australia*, Clim. Dyn., **52**, 1487-1503 DOI: 10.1007/s00382-018-4214-3

T. Nguyen-Quang, J. Polcher, A. Ducharne, T. Arsouze, X. Zhou, A. Schneider and **L. Fita**, (2018): *ORCHIDEE-ROUTING: A new river routing scheme using a high resolution hydrological database*, Geosci. Model Dev., **2018**, 1-34 DOI: 10.5194/gmd-2018-57

J. Fernández, Frías, M. D., Cabos, W. D., Cofiño, A. S., Domínguez, M., **L. Fita**, Gaertner, M. A., García-Díez, M., Gutiérrez, J. M., Jiménez-Guerrero, P., Liguori, G., Montávez, J. P., Romera, R. and Sánchez, E., (2018): *Consistency of climate change projections from multiple global and regional model intercomparison projects*, Clim Dyn, **11**, 4965-4985 DOI: 10.5194/gmd-11-4965-2018

**L. Fita** and Flaounas, E., (2018): *Medicanes as subtropical cyclones: the December 2005 case from the perspective of surface pressure tendency diagnostics and atmospheric water budget*, Q.J.R. Meteorol. Soc., **144**, 1028-1044 DOI: 10.1002/qj.3273

**L. Fita**, J. P. Evans, D. Argüeso, A. King and Y. Liu, (2016): *Evaluation of the regional climate response in Australia to large-scale climate modes in the historical NARCliM simulations*, Clim. Dynamics, **49,(7-8)**, 2815-2829 DOI: 10.1007/s00382-016-3484-x

V. Fernández-Quiruelas, J. Fernández, A. S. Cofiño, C. Blanco, M. García-Díez, M. Magariño, **L. Fita**, J. M. Gutiérrez, (2015): *WRF4G: WRF experiment management made simple*, Geosci. Model Dev. Discuss., **8**, 6551-6582

G. Gómez, W. D. Cabos, G. Liguori, D. Sein, S. Lozano-Galeana, **L. Fita**, J. Fernández, M. E. Magariño, P. Jiménez-Guerrero, J. P. Montávez, M. Domínguez, R. Romera, M. A. Gaertner, (2015): *Characterization of the wind speed variability and future change in the Iberian Peninsula and the Balearic Islands*, Wind Energy, , n/a-n/a

F. Ji, J. P. Evans, D. Argüeso, **L. Fita** and A. Di Luca, (2015): *Using large-scale diagnostic quantities to investigate change in East Coast Lows*, Clim. Dynamics, , 1-11

J. P. Evans, F. Ji, C. Lee, P. Smith, D. Argüeso and **L. Fita**, (2014): *Design of a regional climate modelling projection ensemble experiment NARCliM*, Geoscientific Model Development, **7**, 621-629

M. Domínguez, R. Romera, E. Sánchez, **L. Fita**, J. Fernández, P. Jiménez-Guerrero, J. P. Montávez, W. D. Cabos, G. Liguori, M. A. Gaertner, (2013): *Present-climate precipitation and temperature extremes over Spain from a set of high resolution RCMs*, Clim. Res., **58**, 149-164

P. Jiménez-Guerrero, J. P. Montávez, M. Domínguez, R. Romera, **L. Fita**, J. Fernández, W. D. Cabos, G. Liguori and M. A. Gaertner, (2013): *Mean fields and interannual variability in RCM simulations over Spain: The ESCENA project*, Clim. Res., **57 (3)**, 201-220

D. Argüeso J. P. Evans and **L. Fita**, (2013): *Precipitation bias correction of very high resolution regional climate models*, Hydrol. Earth Syst. Sci., **17**, 4379-4388

M. Menendez, M. García-Díez, **L. Fita**, J. Fernández, F. J. Fernández and J. M. Gutiérrez, (2013): *High-resolution sea wind hindcasts over the Mediterranean area*, Clim. Dynamics, **42**, 1857-1872

D. Argüeso, J. P. Evans and **L. Fita**, K. J. Bormann, (2013): *Temperature response to future urbanization and climate change*, Climate Dynamics, **42**, 2183-2199

M. García-Díez, J. Fernández, **L. Fita** and C. Yagüe, (2011): *Seasonal dependence of WRF model biases and sensitivity to PBL schemes over Europe*, Q. J. of Roy. Met. Soc., **139**, 501-514

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**L. Fita**, A. Sörensson, R. Rusica, (2023): *Regional Climate activities with strong CNRS/IRD collaboration*, Oral, visit CNRS/IRD, 13 april 2023, C. A. Buenos Aires, (Argentina)

**L. Fita** and RegIPSL team, (2022): *Actividades de simulado climàtico en América del Sur con el RegIPSL*, Poster (Castilian), XIV CONGREMET, 7-11 November 2022, C. A. Buenos Aires, (Argentina)

**L. Fita**, (2022): *Creación de un servidor de datos Regional*, Oral (Castilian), Seminar CIMA/DCAO, 26 october 2022, C. A. Buenos Aires, (Argentina)

**L. Fita**, (2022): *AmSud - Soupe: Where are we?*, Oral, Open RegIPSL meeting, 29 June 2022, Polytechinque, Palaisseau, (France)

**L. Fita**, (2022): *cpAmSur: Simulación climática a muy alta resolución y complejidad en América del Sur — Tres-Ejes*, Oral (Castillan), CLIMAT-AmSur, 12 May 2022, Medellín, (Colombia)

**L. Fita**, (2022): *NCAR South America Affinity Group: urban initative: short description*, Oral, SAAG urban meeting, 21 January 2022, remote, ()

**L. Fita**, (2022): *SAAG: vi Convection-Permitting Climate Modeling Workshop & 1st Convection-Permitting Climate Modeling School*, Oral, NCAR SAAG meeting, 12 January 2022, remote, ()

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**L. Fita**, (2019): *Perspectives and advances of the CORDEX initiative. Experiences and thoughts from L. Fita*, Oral, Rossby Center, 15 August, Norköping, (Sweden)

**L. Fita**, (2019): *Propuestas de tesis alrededor del modelado numérico*, Poster (in Spanish), DCAO's degree thesis show, C. A. Buenos Aires, (Argentina)

**L. Fita**, (2018): *Convection Permitting Climate simulations ¿El futuro está aquí?*, Oral, Internal meeting CIMA's land group (in Spanish), C. A. Buenos Aires, (Argentina)

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**L. Fita**, (2017): *Modelización de la atmósfera usos y características*, 1-hour graduate class (Spanish), 2017 June 23rd, UBA-DCAO, C.A. Buenos Aires, (Argentina)

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**L. Fita**, (2016): *NARCliM: Regional climate simulations over Australia. Long term analysis*, Oral, LMD - Réunion Intro team, Palaiseau, (France)

**L. Fita**, (2015): *DYNAMICO: Desarrollo de un GCM de nueva generación*, Oral, Seminar at the CIMA-DCAO, Buenos Aires, (Argentina)

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**L. Fita**, M. Vich, R. Romero and C. Ramis, (2008): *An object-oriented methodology for the verification of cyclone trajectories in an ensemble forecasting system*, Oral, 10th Plinius Conference on Mediterranean Storms and extreme events in an era of climate change, Lefkosia, (Cyprus)

A. Luque, **L. Fita**, R. Romero, S. Alonso, (2007): *Tropical-like Mediterranean storms: an analysis from satellite*, Oral, Joint 2007 EUMETSAT Meteorological Satellite Conference and the 15th Satellite Meteorology & Oceanography Conference of the American Meteorological Society, Amsterdam, (Nederlands)

**Fita L.**, R. Romero, A. Luque, (2007): *Improvements of numerical simulations of tropical-like Mediterranean storms through the assimilation of satellite and lightning data*, Oral, 9th Plinius Conference on Mediterranean Storms and extreme events in an era of climate change, Verenna, (Italy)

Martín A., Homar V., **Fita Ll.**, Rodríguez M.A., Primo C. and Gutiérrez J.M., (2007): *Geometric vs Classical Breeding of vectors: Application to hazardous weather in the Western Mediterranean*, Oral, IV EGU General Assembly, Viena, (Austria)

**L. Fita**, R. Romero, A. Luque and C. Ramis, (2007): *Assimilation of satellite and lightning data in numerical simulations of tropical-like Mediterranean storms*, Poster, European Geosciences Union General Assembly, Viena, (Austria)

A. Martín, V. Homar, **L. Fita**, C. Primo, M. A. Rodríguez and J. M. Gutiérrez, (2007): *Testing Geometric Bred Vectors with a mesoscale short-range ensemble prediction system over the Western Mediterranean*, Poster, 3rd International Verification Methods Workshop, Reading, (United Kingdom)

Martín A., Homar V., **Fita Ll.**, Gutiérrez J.M. and Primo C., (2006): *Testing geometric bred vectors with a mesoscale short-range ensemble prediction system over the Western Mediterranean*, Oral, 8th Plinius Conference on Mediterranean Storms and extreme events in an era of climate change, Dead Sea, (Israel)

**Fita L.**, Romero R. and Ramis C., (2006): *Sensitivity study of two Mediterranean tropical-like storms*, Oral, 8th Plinius Conference on Mediterranean Storms and extreme events in an era of climate change, Dead Sea, (Israel)

Porja T., Luque A., **Fita L.**, Alonso S. and Mustaqi V., (2006): *Rainfall analysis of flood cases over Albania, using Meteosat imagery, ground rain measurements and passive microwave rain rate*, Oral, 6th Annual Meeting of the EMS / 6th ECAC, Ljubljana, (Slovenia)

**Fita, Ll.**, Romero R., Luque A., Emanuel K. and Ramis C., (2006): *Intercomparison of Mediterranean hurricane like storms using an axisymmetric, nonhydrostatic, cloud resolving model*, Oral, European Geosciences Union, Viena, (Austria)

Horvath K., **Fita L.**, Romero R., Ivančan-Picek B. and Stiperski I, (2004): *Sensitivity of the November 2004 Mediterranean cyclone and induced Bura flow in Adriatic Sea to macroscale dynamical factors*, Oral, 7th EGU Plinius Conference, Rethymnon, (Greece)

**Ll. Fita**, R. Romero and C. Ramis, (2005): *Intercomparison of intense cyclogenesis events over the Mediterranean basin based on baroclinic, diabatic and topographical influences*, Poster, 7th EGU Plinius Conference, Rethymnon, (Greece)

**L. Fita**, R. Romero and C. Ramis, (2005): *PV approach for the analysis of the 9-12th november 2001 western Mediterranean cyclone*, Poster, Europen Geosciences Union -General Assembly, Viena, (Austria)

K. Horvath, **L. Fita**, R. Romero and B. Ivančan-Picek, (2004): *The influence of orography during deep Mediterranean cyclogenesis events over the Mediterranean basin based on baroclinic, diabatic and topographical influences*, Poster, ICAM 2004, Zagreb, (Croatia)

García-Ortega, E., **L. Fita**, R. Romero, L. López, C. Ramis, and J. L. Sánchez, (2004): *Diagnosis of the meteorological situation of 16th August 2003: An extreme hail event*, Oral, ECSS 2004 (European Congres on Severe Storms 2004, León, (Spain)

**Ll. Fita**, R. Romero and C. Ramis, (2004): *An Analysis of the 9-12th November 2001 West Mediterranean storm based on PV Inversion*, Poster, ECSS 2004 (European Congres on Severe Storms 2004), León, (Spain)

## SCIENTIFIC COMMUNITY INVOLVEMENT

**Organization of Scientific Activities**

| | | | |
|---|---|---|---|
| 11th July 2023 | **Short introduction to ORCHIDEE**[a] **land model** | CIMA/DCAO Hands on | C. A. Buenos Aires, Argentina |
| 23 June 2023 | **Short introduction to LaTeX** | CIMA/DCAO Hands on | C. A. Buenos Aires, Argentina |
| April 2023 | **Pequeña introducción a GIT: Mis primeros pasos con un repositorio** | CIMA/DCAO Hands on | C. A. Buenos Aires, Argentina |
| 2022 September 10th | **'i Convection-Permitting Climate Modelling School - iCPCMS** | Organizing comitee | C. A. Buenos Aires, Argentina |
| 2022 September 7-9th | **'vi Convection-Permitting Climate Modelling Workshop - viCPCMW** | Scientific and organizing comitee | C. A. Buenos Aires, Argentina |
| 2019 March 4-6th | **'VII International Conference on Meteorology and Climatology of the Mediterranean - 7th MetMed'** | Scientific and organizing comitee | Palma de Mallorca, Spain |
| 2018 June 4th,6th | **IIa Linux parTUXza: Linux-install party at the Universidad de Buenos Aires** | Organizing committee | C. A. Buenos Aires, Argentina |
| 2017 December - present | **CORDEX-WRF: WRF module for CORDEX output**[bc] | Principal programmer | C. A. Buenos Aires, Argentina |

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[a] *'Organising Carbon and Hydrology In Dynamic Ecosystems'* (ORCHIDEE, https://orchidee.ipsl.fr/)

[b] http://wiki.cima.fcen.uba.ar/mediawiki/index.php/CDXWRF

[c] DOIs; WRFV3.7.1: 10.5281/zenodo.1469638, WRFV3.8.1: 10.5281/zenodo.1469644, WRFV3.9.1.1: 10.5281/zenodo.1469646 & WRF4.0: 10.5281/zenodo.1469650

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|---|---|---|---|
| 2017 June 14th | **Linux parTUXza: Linux-install party at the Universidad de Buenos Aires** | Organizing committee | C. A. Buenos Aires, Argentina |
| 2017 Feburary 20th-22nd | **Joint Congress of the 6th International Conference on Meteorology and Climatology of the Mediterranean (MetMed) & Challenges in Meteorology (MI) 5** | Scientific committee | Zagreb, Croatia |
| 2016 December 5-7th | **Formation LMDZ** | Organizing committee | Paris, France |
| October 2016 | **PyNCplot** [www.xn--llusfb-5va.cat/python/PyNCplot](www.xn--llusfb-5va.cat/python/PyNCplot) | Python netCDF tools for atmospheric sciences | |
| 7-9th December 2015 | **Formation LMDZ** | Organizing committee | Paris, France |
| March 2nd-4th 2015 | **5th International Conference on Meteorology and Climatology of the Mediterranean (MetMed)** | Scientific committee | Istanbul, Turkey |
| December 2014 | **Formation LMDZ** | Organizing committee | Paris, France |
| June 30th 2014 | **journés LMDZ** | Organizing committee | Paris, France |
| June 7th-11th 2011 | **3rd International Meeting on Meteorology and Climatology of the Mediterranean** | Scientific and Local committee | Calabria, Italy |
| Mar. 11th-12th 2010 | **Segones Jornades de Meteorologia i Climatologia de la Meteoditerrània Occidental** (*2nd Meeting of Meteorology and Climatology of the Western Mediterranean*) | Local committee | Valencia, Spain |
| Nov. 28th 2008 | **Primeres Jornades de Meteorologia i Climatologia de la Meteoditerrània Occidental** (*1st Meeting of Meteorology and Climatology of the Western Mediterranean*) | Local commitee | Barcelona, Spain |

**Other Scientific Activities**

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|---|---|---|
| Aug. 2014 - present | **Member of the Editorial Board of "Tethys" e-journal** | Spain |
| Sept. 2007 - present | **Content Editor of "Tethys" e-journal** | Spain |
| June 2006 -Sept. 2007 | **Assistant editor of "Tethys" e-journal** ([www.tethys.cat](www.tethys.cat)) | Spain |

**Popular Science Activities**

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|---|---|---|---|
| 2016 October | **'Fête de la Science'** participant on stand of LMD[a] | Université Maire Curie | Paris, France |
| 2015 October | **'Fête de la Science'** participant on stand of LMD | Université Maire Curie | Paris, France |
| 2014 October | **'Fête de la Science'** participant on stand of LMD | Université Maire Curie | Paris, France |
| 2007 | **'VI Fira de la Ciència'** participant on stand of GM[b] | Different locations | Maó (3 days) & Palma (3 days), Spain |

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[a]Laboratoire de Météorologie Dynamique, UPMC
[b]Grup de Meteorologia, Physics Dept., UIB

## MAIN SKILLS

**Scientific techniques:** WRF-ARW, RegIPSL, MM5, PV-Inversion, Factor Separation, Sensitivity Studies, FDDA data assimilation, Model coupling, LMDZ, DYNAMICO

**Programming:** Fortran 77 - 90 and Message Passage Interface (MPI), Shell scripting, python, GNUplot, R, GRID environment, LaTeX, Vis5D, HTML, wiki, PHP, MySQL, MS-Access, IDL

**Others:** CDO (Climate Data Operators), NCO, ncview, tools-UI, subversion, Track system

## SCHOLARSHIPS AND AWARDS

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|---|---|---|
| 2005 | **Award for the best oral lecture among presentations of Ph.D. students in the 7th EGU Plinius Conference** (co-author) | EGU |
| 2004-2007 | **Ph.D. student scholarship reference: BES-2003-0696** | Spanish government |
| 2000 | **1st price of the ACOM scientific works anual contest** (University student category) | ACOM |

**Other qualifications & rellevant activities**

Official Spanish **Leisure Captain** (no miles limitation)
Official Spanish **Leisure Yacht Skipper** (up to 60 miles from coast, 20 m length)
Official Spanish **Leisure Skipper** (up to 12 miles from coast, 12 m length)
**Intermediate music degree** (instrument piano)
Member of '**Físics per al Desenvolupament**' (*Physics for the development*, physics' graduate & under-
graduate volunteer organization)
**16 years of Boy-Scout** in A.E. Pare Claret, Girona, Spain (8 as child, 8 as leader)

**Collaboration with Media**

- Méteo (TV Mallorca, TV[M]), September 17, 2008: What is a medicane? (Meteo. TV program, in Catalan)
- El Mundo (Valentian edition), September 3, 2008: El cambio climático incrementará la fuerza de los mini huracanes tropicales del Mediterráneo (newspaper, in Spanish)
- La Vanguardia, August 17, 2008: Un Mediterráneo huracanado (newspaper, in Spanish) http://hemeroteca.lavanguardia.com/preview/2008/08/17/pagina-21/73303466/pdf.html?search=Fita
- Radio Mania, June 23, 2008: (on air phone interview, A. Santoyo, 'Diari Mania')
- IB3 Ràdio, June 19, 2008: (on air interview, A. Mayo, 'Al dia')
- Faro de Vigo, June 15, 2008: Científicos de Baleares detectan unas 40 tormentas 'tropicales' en el Mediterráneo (e-news, in Spanish) http://www.farodevigo.es/secciones/noticia.jsp?pRef=2008061500_26_234176_
_Ciencia-y-Tecnologia-Cientificos-Baleares-detectan-unas-tormentas-tropicales-Mediterraneo
- Diario de Mallorca, June 15, 2008: Azotados por tormentas tropicales (e-news, in Spanish) http://www.diariodemallorca.es/secciones/noticia.jsp?pRef=2008061600_2_368010_
_Mallorca-Azotados-tormentas-tropicales
- El mundo.es (Mallorca), June 15, 2008: 40 tormentas 'tropicales' en el Mediterráneo (e-news, in Spanish) http://www.elmundo.es/elmundo/2008/06/15/baleares/1213526210.html
- Collaboration in TV program: 'Quarks&Co' - WDR (different emissions since May 2008) *Orkane, Hurrikane und Tornados -Wie stürmisch wird die Zukunft?* (in German) http://www.wdr.de/tv/quarks/sendungsbeitraege/2007/1113/000_sturm.jsp
- Mallorca Zeitung, August 9, 2007 (in German)
- Süddeutsche Zeitung, July 28, 2007 e-news (in German) http://www.sueddeutsche.de/wissen/klimaerwaermung-hurrikane-am-mittelmeer-1.913286

**Languages**

**Catalan and Spanish:** native bilingual
**English:** Advance level
**German:** intermediate level
**French:** intermediate level