

Antonio Navarra Curriculum Vitae

Personal Details

Date of Birth: September 29, 1956

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Education

Princeton University, Ph.D	1986, Ph.D.
Princeton University, Master of Arts	1982, M.A
University of Bologna, Laurea in Fisica, 110 e lode	1980
ECMWF, Reading, UK (Teaching Course)	1980
CERN, Geneva, Switzerland (Summer Student)	1979

Professional Experiences

Full Professor, Meteorology and Climatology, University of Bologna	2020-present
Director of Dipartimento Ambiente, INGV	2013-2014
Board of Directors, Istituto Nazionale di Astrofisica	2008-2011
Affiliate Scientist, NCAR, Boulder, USA	2007-2019
President, Centro Euro-Mediterraneo sui Cambiamenti Climatici	2005-present
Board of Directors, Istituto Nazionale di Geofisica e Vulcanologia	2000-2004
Dirigente di Ricerca, Istituto Nazionale di Geofisica e Vulcanologia	1999-2020
Scientist, permanent position, IMGGA-CNR	1988-1999
Scientist, contract researcher, IMGGA-CNR	1987-1988

Visiting Scientist:

National Center for Atmospheric Research, Boulder, USA	1992-present
Max-Planck-Institut für Meteorologie, Hamburg	1993, 1994, 1995
GFDL/Princeton University	1992, 1993, 1994
Harvard University	1987, 1988
University of Maryland	1986, 1987

Awards

Guest Professor, Shandong University, Laoshan, China	2019
Menzione d'onore, Regione Emilia-Romagna	2019

Teaching Activities

1. Contract Professor, Ph.D Program in Science and Management of Climate Change, University of Venezia 2008-2019
2. Contract Professor, “*Meteorology and Climatology*”, Corso di Laurea in Scienze Ambientali, Sede di Ravenna, University of Bologna 1997-2006
3. Special Lecturer, Special series of 20 lectures, “*Meteorologia e Climatologia*”, Corso di Laurea in Fisica, University of Bologna 1996-1997

Supervisor or Co-supervisor of Graduate Ph.D Level:

Paula Sanchez, Future Earth, Global Change and Social Challenges, UNIBO	Current
Marianna Benassi, Ph.D Program in Science and Management of Climate Change, University of Venezia	2016
Giovanni Conti, Ph.D Program in Science and Management of Climate Change, University of Venezia	2015
Giuseppe Zappa, Ph.D Program in Science and Management of Climate Change, University of Venezia	2011
Stefano Materia, Dottorato in Scienze Ambientali, Bologna	2009
Andrea Alessandri, Dottorato di Geofisica, University of Bologna	2006
Annalisa Cherchi, Dottorato di Geofisica, University of Bologna	2003
Silvio Gualdi, PhD University of Hamburg	1996

Institution Building

Antonio Navarra has planned and directed the process of creation of the Centro EuroMediterraneo sui Cambiamenti Climatici (www.cmcc.it), that is the national Italian Center for modeling studies of climate change and its impacts. As the Director of the Center, he has supervised the innovative corporate structure of the Center, a no-profit partnership of public and private research organizations, its planning and implementation. The Center started operations in 2005 with a starting fund of 27 Millions Euro and now includes more than 300 researchers, headquarters in Lecce and offices in Bologna, Venezia, Milano, Viterbo, Sassari and Caserta. The yearly budget has reached around 40M euro by winning other national research contracts from public and private funders and from framework programs of the European Community.

Appointments

- Chair, United Nations Adaptation Fund Board 2023-2024
- Vice-Chair, United Nations Adaptation Fund Board 2022
- European Center for Medium range Weather Forecasts, (ECMWF), Board member 2017-present
- President of the Accreditation Panel, United Nations Adaptation Fund Board 2018
- Cluster of Excellence Review Panel, German Science Foundation, (DFG), Bonn 2018
- Member of the United Nations Adaptation Fund Board 2017-2018
- Member of the Governing Board, EU Joint Programming Initiative – Climate 2012-present

- Member of the Scientific Steering Committee of PRACE 2012-2017
- Member of the *Science Advisory Committee of Climate Center for Climate Information Services (APCC)*, Busan, South Korea 2006-2018
- Member of the Scientific Council of WWF Italy 2004-2018
- Expert evaluator for the European Commission of the “*Marie Curie*” program
- Expert evaluator for the European Commission of the “*Marine Science and Technology*” program
- Expert evaluator for the European Commission of the “*Environment and Climate*” program
- Expert at the meeting of *CLIVAR* (NEG 1) of the Working Group 1, Hamburg 1997
- Executive Committee of *EUROCLIVAR* 1996-1999
- Executive Committee for the environmental modelling at ICTP, Trieste 1996- 1997
- Expert at *CLIVAR* Workshop on “*Atmosphere-ocean interaction and their influence on decadal-scale climate variability*”, Vancouver, Canada 1996
- Coordination commission of European Community modelling for the *MAST* project 1989-1998
- Member of the Scientific Council of IMGA-CNR 1987-1998

Official appointments:

- Italian Government Presidency of the Council, Interministerial Steering Committee for Meteorology and Climatology 2017-present
- Intergovernmental Panel on Climate Change, Focal Point for Italy 2013-present
- Contributing Author to “Chapter 23 – Europe” of the IPCC 5th Assessment Report
- National delegate of the Program Management Committee “*Environment including climate change*” of the 6th Framework program of the European Union, 2006-2009
- Eligible for selection as Director of the Environment Department of CNR 2006
- Organizing Committee, CNR Environment Department, 2003-2005
- Member as Expert of the management committee of the Sixth Framework Program of the European Union 2002-2006
- Member of the Commission for the Organization of the National Institute of Geophysics and Volcanology 2000
- Member as Expert of the program management committee “*Energy, Environment and sustainable development*” of the 5th Framework program of the European Union 1998 -2002

Professional Activities

Editorial Activities

- Reviewer of papers for “*Journal of Computational Physics*”, “*Journal of Atmospheric Sciences*”, “*Journal of Climate*”, “*Climate Dynamics*”, “*Monthly Weather Review*” and US National Science Foundation

Professional Societies

Member of the American Meteorological Society

President of the Società Italiana per le Scienze Climatiche (until 2014).

Publications

• National and International Publications

1. Tapio Schneider, Swadhin Behera, Giulio Boccaletti, Clara Deser, Kerry Emanuel, Raffaele Ferrari, L. Ruby Leung, Ning Lin, Thomas Müller, Antonio NAVARRA, Ousmane Ndiaye, Andrew Stuart, Joseph Tribbia & Toshio Yamagata, Harnessing AI and computing to advance climate modelling and prediction, *Nature Climate Change*, 13, 887-889, 2023. <https://doi.org/10.1038/s41558-023-01769-3>
2. Lovato, D. Peano, M. Butenschön, S. Materia, D. Iovino, E. Scoccimarro, P. G. Fogli, A. Cherchi, A. Bellucci, S. Gualdi, S. Masina, A. NAVARRA. CMIP6 simulations with the CMCC Earth System Model (CMCC-ESM2). *Journal of Advances in Modeling Earth Systems*, 14, e2021MS002814. <https://doi.org/10.1029/2021MS002814>, 2022.
3. Scoccimarro, E., Peano, D., Gualdi, S., Bellucci, A., Lovato, T., Fogli, P. G., and NAVARRA, A.: Extreme events representation in CMCC-CM2 standard and high-resolution general circulation models, *Geosci. Model Dev.*, 15, 1841–1854, <https://doi.org/10.5194/gmd-15-1841-2022>, 2022.
4. Conti, G., Aydoğdu A., Gualdi S., NAVARRA A, Joe Tribbia. On the physical nudging equations. *Clim Dyn* **58**, 1459–1476. <https://doi.org/10.1007/s00382-021-05972-w>, 2022.
5. NAVARRA A, *The role of systematic errors*, **National Science Review**, nwab082, <https://doi.org/10.1093/nsr/nwab082>, 2021.
6. Scoccimarro E, Villarini G, Gualdi S and NAVARRA A, *The Pacific Decadal Oscillation modulates tropical cyclone days on the interannual timescale in the North Pacific Ocean*, **J. Geophys. Res.: Atmospheres**, **126**, e2021JD034988, 2021.
7. NAVARRA A, Tribbia, J, & Klus S, *Estimation of Koopman Transfer Operators for the Equatorial Pacific SST*, **J. Atmos. Sci.**, 78(4), 1227-1244, 2021.
8. Reno C, Lenzi J, NAVARRA A, Barelli E, Gori D, Lanza A, Valentini R, Tang B, and Fantini M P. *Forecasting covid-19-associated hospitalizations under different levels of social distancing in lombardy and emilia-romagna, northern italy: Results from an extended seir compartmental model*. **Journal of Clinical Medicine**, 9(5). ISSN 2077-0383. doi: 10.3390/jcm9051492. URL <https://www.mdpi.com/2077-0383/9/5/1492>, 2020.
9. Jacob D, Teichmann C, Sobolowski S, Katragkou E, Anders, I Belda M, Benestad R, Boberg F, Buonomo E, Cardoso MR, Casanueva A, Christensen OB, Hesselbjerg Christensen J, Coppola E, De Cruz L, Davin EL, Dobler A, Dominguez M, Fealy R, Fernandez J, Gaertner MA, Garcia-Diez M, Giorgi F, Gobiet A, Goergen K, Gomez-Navarro JJ, Gonzalez Aleman JJ, Gutierrez C, Gutierrez JM, Guttler I, Haensler A, Halenka T, Jerez S, Jimenez-Guerrero P, Jones RG, Keuler K, Kjellstrom E, Knist S, Kotlarski S, Maraun D, van Meijgaard E, Mercogliano P, Montavez JP, NAVARRA A, Nikulin G, de Noblet-Ducoudre N, Panitz HJ, Pfeifer S, Piazza M, Pichelli E, Pietikainen JP, Prein AF, Preuschmann S, Rechid D, Rockel B, Romera R, Sánchez E, Sieck K, Soares P, Somot S, Srnec L, Lund Sørland S, Termonia P, Truhetz H, Vautard R, Warrach-Sagi K, Wulfmeyer J, *Regional climate downscaling over*

- Europe: perspectives from the EURO-CORDEX community*, **Regional Environmental Change**, DOI: <https://doi.org/10.1007/s10113-020-01606-9> , 2020.
10. Scoccimarro E, Gualdi S, Bellucci A, Peano D, Cherchi A, Vecchi GA, NAVARRA A, *The typhoon-induced drying of the Maritime Continent*, **Proceedings of the National Academy of Sciences**, 117, 3983-3988; <https://doi.org/10.1073/pnas.1915364117>, 2020.
 11. Sepp Neves AA, Pinardi N, NAVARRA A and Trotta F, A General Methodology for Beached Oil Spill Hazard Mapping, *Front. Mar. Sci.*, 7:65. doi: 10.3389/fmars.2020.000 , 2020
 12. N.D. Mc Shine, R.M. Clarke, S. Gualdi, NAVARRA A and X.T. Chadee, Influences of the Atlantic and Pacific Oceans on Rainy Season Precipitation for the Southernmost Caribbean Small Island State, *Trinidad*, **Atmosphere**, Vol. 10, Issue 11, Article Number : 707 DOI: 10.3390/atmos10110707, 2019.
 13. A. Cherchi, P.G. Fogli, G., T. Lovato, D. Peano, D. Iovino, S. Gualdi, S. Masina, E. Scoccimarro, S. Materia, A. Bellucci, NAVARRA A, *Global mean climate and main patterns of variability in the CMCC-CM2 coupled model*, **Journal of Advances in Modeling Earth Systems**, 11, <https://doi.org/10.1029/2018MS001369>, 2019.
 14. E. Scoccimarro, A. Bellucci, A. Storto, S. Gualdi, S. Masina, NAVARRA A, *Remote subsurface ocean temperature as a predictor of Atlantic hurricane activity*, **Proceedings of the National Academy of Sciences**, 115 (45) 11460-11464; DOI: 10.1073/pnas.1810755115, 2018.
 15. C. Penland, NAVARRA A, *Issues in stochastic ocean modeling*, **Journal of Marine research**, 75, 815-837, DOI: 10.1357/002224017823524008, 2017.
 16. G. Verri, N. Pinardi, D. Gochis, J. Tribbia, NAVARRA A, G. Coppini, T.A. Vukicevic, *Meteo-hydrological modelling system for the reconstruction of river runoff: the case of the Ofanto river catchment*, **Natural Hazards and Earth System Sciences**, 17, 1741-1761, 2017.
 17. T. Doi, A. Storto, S.K. Behera, NAVARRA A, T. Yamagata, *Improved prediction of the indian ocean dipole by use of subsurface ocean observations*, **J. Climate**, 30, 7953-7970, 2017.
 18. G. Conti, NAVARRA A, J. Tribbia, *ENSO Transition probabilities*, **J. Climate**, 30, 4951-4964, 2017.
 19. N. Pinardi, L. Cavaleri, G. Coppini, P. De Mey, C. Fratianni, J. Huthnance, P.F.J. Lermusiaux, NAVARRA A, R. Preller, S. Tibaldi, *From weather to ocean predictions: an historical viewpoint*, **Journal of Marine research**, 75, 103-159, 2017.
 20. G. Coppini, P. Marra, R. Lecci, N. Pinardi, S. Creti, M. Scalas, L. Tedesco, A. D'Anca, L. Fazioli, A. Olita, G. Turrisi, C. Palazzo, G. Aloisio, S. Fiore, A. Bonaduce, Y. V. Kumkar, S.A. Ciliberti, I. Federico, G. Mannarini, P. Agostini, R. Bonarelli, S. Martinelli, G. Verri, L. Lusito, D. Rollo, A. Cavallo, A. Tumolo, T. Monacizzo, M. Spagnulo, R. Sorgente, A. Cucco, G. Quattrocchi, M. Tonani, M. Drudi, P. Nassisi, L. Conte, L. Panzera, NAVARRA A and G. Negro, *SeaConditions: a web and mobile service for safer professional and recreational activities in the Mediterranean Sea*, **Natural Hazards and Earth System Sciences**, 17, Issue: 4, 533-547, 2017.
 21. E. Scoccimarro, P.G. Fogli, K.A. Reed, S. Gualdi, S. Masina and NAVARRA A, *Tropical Cyclone Interaction with the Ocean: The Role of High-Frequency (Subdaily) Coupled Processes*, **Journal of Climate**, 30, 145-162, 2017.
 22. A. Cherchi, H. Annamalai, S. Masina, NAVARRA A and A. Alessandri, *Twenty-first century projected summer mean climate in the Mediterranean interpreted through the monsoon-desert mechanism*, **Clim. Dynam.**, 47, 2361-2371, 2016.
 23. A.C. Ruane, C. Teichmann, N.W. Arnell, T.R. Carter, K.L. Ebi, K. Frieler, C.M. Goodess, B. Hewitson, R. Horton, R.S. Kovats, H.K. Lotze, L.O. Mearns, NAVARRA A, D.S. Ojima, K. Riahi, C. Rosenzweig, M. Themessl and K. Vincent, *The Vulnerability, Impacts, Adaptation and Climate Services Advisory Board (VIACS AB v1.0) contribution to CMIP6*, **Geoscientific Model Development**, 9, 3493-3515, 2016.

24. Y.H. Tseng, H.Y. Lin, H.Y. Chen, K. Thompson, M. Bentsen, C.W. Boning, A. Bozec, C. Cassou, E. Chassignet, C.H. Chow, G. Danabasoglu, S. Danilov, R. Farneti, P.G. Fogli, Y. Fujii, S.M. Griffies, M. Ilicak, T. Jung, S. Masina, NAVARRA A, L. Patara, B.L. Samuels, M. Scheinert, D. Sidorenko, C.H. Sui, H. Tsujino, S. Valcke, A. Voldoire, Q. Wang and S.G. Yeager, *North and equatorial Pacific Ocean circulation in the CORE-II hindcast simulations*, **Ocean Modelling**, **104**, 143-170, 2016.
25. E. Scoccimarro, S. Gualdi S., A. Bellucci, M. Zampieri and NAVARRA A, *Heavy precipitation events over the Euro-Mediterranean region in a warmer climate: results from CMIP5 models*, **Regional Environmental Change**, **16**, 595-602, 2016.
26. A. Storto, S. Masina and NAVARRA A, *Evaluation of the CMCC eddy-permitting global ocean physical reanalysis system (C-GLORS, 1982-2012) and its assimilation components*, **QJRMS**, **142**, 738-758, 2016.
27. G. Danabasoglu, S.G. Yeager, W.M. Kim, E. Behrens, M. Bentsen, D.H. Bi, A. Biastoch, R. Bleck, C. Böning, A. Bozec, V.M. Canuto, C. Cassou, E. Chassignet, A.C. Coward, S. Danilov, N. Diansky, H. Drange, R. Farneti, E. Fernandez, P.G. Fogli, G. Forget, Y. Fuji, S.M. Griffies, A. Gusev, P. Heimbach, A. Howard, M. Ilicak, T. Jung, A.R. Karspek, M. Kelley, W.G. Large, A. Leboissetier, J. Lu, G. Madec, S.J. Marsland, S. Masina, NAVARRA A, A.J.G. Nurser, A. Pirani, A. Romanou, D. Salas y Mélia, B.L. Samuels, M. Schienert, D. Sidorenko, S. Sun, A.M. Treguier, H. Tsujino, P. Uotila, S. Valcke, A. Voldoire, Q. Wang and I. Yashayaev, *North Atlantic simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part II: Inter-annual to decadal variability*, **Ocean Modelling**, **97**, 65-90, 2016.
28. S. M. Downes, R. Farneti, P. Uotila, S.M. Griffies, S.J. Marsland, D. Bailey, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Böning, A. Bozec, V.M. Canuto, E. Chassignet, G. Danabasoglu, S. Danilov, N. Diansky, H. Drange, P.G. Fogli, A. Gusev, A. Howard, M. Ilicak, T. Jung, M. Kelley, W. G. Large, A. Leboissetier, M. Long, J. Lu, S. Masina, A. Mishra, NAVARRA A, A.J.G Nurser, L. Patara, B.L. Samuels, D. Sidorenko, P. Spence, H. Tsujino, Q. Wang and S.G. Yeager, *An assessment of Southern Ocean water masses and sea ice during 1988–2007 in a suite of interannual CORE-II simulations*, **Ocean Modelling**, **94**, 67-94, 2015.
29. R. Farneti, S.M. Downes, S.M. Griffies, S.J. Marsland, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Boening, A. Bozec, V.M. Canuto, E. Chassignet, G. Danabasoglu, S. Danilov, N. Diansky, H. Drange, P.G. Fogli, Gusev, Anatoly, Hallberg, Robert W., Howard, Armando, Ilicak, Mehmet, T. Jung, M. Kelley, W.G. Large, A. Leboissetier, M. Long, J. Lu, S. Masina, A. Mishra, NAVARRA A, A.J.G. Nurser, L. Patara, B.L. Samuels, D. Sidorenko, H. Tsujino, P. Uotila, Q. Wang and S.G. Yeager, *An assessment of Antarctic Circumpolar Current and Southern Ocean meridional overturning circulation during 1958-2007 in a suite of interannual CORE-II simulations*, **Ocean Modelling**, **93**, 84-120, 2015.
30. A. Alessandri, A. Borrelli, A. Cherchi, S. Materia and NAVARRA A, *Prediction of Indian Summer Monsoon Onset Using Dynamical Subseasonal Forecasts: Effects of Realistic Initialization of the Atmosphere*, **Mon. Weather Rev.**, Volume **143**, Issue 3, 778-793, 2015.
31. M. Zampieri, E. Scoccimarro, S. Gualdi and NAVARRA A, *Observed shift towards earlier spring discharge in the main Alpine rivers*, *Sci. Total Environ.*, **503**, 222-232, doi: 10.1016/j.scitotenv. 2014.06.036, 2015.
32. F. Colleoni, S. Masina, A. Cherchi, NAVARRA A, C. Ritz, V. Peyaud and B. Otto-Bliesner, *Modeling Northern Hemisphere ice-sheet distribution during MIS 5 and MIS 7 glacial inception*, **Climate of the Past**, **10**, Issue 1, 269-291, 2014.
33. S. Materia, A. Borrelli, A. Bellucci, A. Alessandri, P. Di Pietro, P. Athanasiadis, NAVARRA A and S. Gualdi, *Impact of Atmosphere and Land Surface Initial Conditions on Seasonal Forecasts of Global Surface Temperature*, **J. Climate**, **27**, 9253-9271, 2014.

34. A. Cherchi, H. Annamalai, S. Masina and NAVARRA A, *South Asian Summer Monsoon and the Eastern Mediterranean Climate: The Monsoon-Desert Mechanism in CMIP5 Simulations*, **J. Climate**, **27**, No. 12, 6877-6903, 2014.
35. P. Davini, C. Cagnazzo, P.G. Fogli, E. Manzini, S. Gualdi e A.NAVARRA, *European blocking and Atlantic jet stream variability in the NCEP/NCAR reanalysis and the CMCC-CMS climate model*, **Clim Dynam**, **43**, 71-85, 2014.
36. E. Scoccimarro, S. Gualdi, G. Villarini, G.A. Vecchi, M. Zhao, K. Walsh and NAVARRA A, *Intense precipitation events associated with landfalling tropical cyclones in response to a warmer climate and increased CO₂*, **J. Climate**, **27**, No. 12., 4642-4654, doi: 10.1175/JCLI-D-14-00065.1, 2014.
37. G.A. Meehl, L. Goddard, G. Boer, R. Burgman, G. Branstator, C. Cassou, S. Corti, G. Danabasoglu, F. Doblas-Reyes, E. Hawkins, A. Karspeck, M. Kimoto, A.Kumar, D. Matei, J. Mignot, R. Msadek, NAVARRA A, H. Pohlmann, M. Rienecker, T. Rosati, E. Schneider, D. Smith, R. Sutton, H. Teng, G.J. van Oldenborgh, G. Vecchi and S. Yeager, *Decadal Climate Prediction: An Update from the Trenches*, **B. Am. Meteorol. Soc.**, **95**, 2, 243-267, 2014.
38. G. Danabasoglu, S. G. Yeager, D. Bailey, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Boning, A. Bozec, V. Canuto, C. Cassou, E. Chassignet, A. C. Coward, S. Danilov, N. Diansky, H. Drange, R. Farneti, E. Fernandez, P. G. Fogli, G. Forget, Y. Fujii, S. M. Griffies, A. Gusev, P. Heimbach, A. Howard, T. Jung, M. Kelley, W. G. Large, A. Leboissetier, J. Lu, G. Madec, S. J. Marsland, S. Masina, NAVARRA A, A. J. G. Nurser, A. Pirani, D. Salas y Melia, B. L. Samuels, M. Scheinert, D. Sidorenko, A.-M. Treguier, H. Tsujino, P. Uotila, S. Valcke, A. Voldoire, and Q. Wang, *North Atlantic simulations in Coordinated Ocean-ice Reference Experiments phase II (CORE-II). Part I: Mean states*. **Ocean Modelling**, **73**, 76-107, 2014.
39. N. Pinardi, A. Bonaduce, NAVARRA A, S. Dobricic and P. Oddo, *The Mean Sea Level Equation and its application to the Mediterranean Sea*, **J. Climate**, **27**, 442-47, 2014.
40. Contributing Author to: Kovats, R.S., R. Valentini, L.M. Bouwer, E. Georgopoulou, D. Jacob, E. Martin, M. Rounsevell, and J.-F. Soussana: Europe. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White(eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1267-1326.
41. NAVARRA A, J. Tribbia and G. Conti, *Atmosphere–Ocean Interactions at Strong Couplings in a Simple Model of El Niño*, **J. Climate**, **26**, 9633–9654, 2013.
42. Bellucci A, Gualdi S, Masina S, Storto A, Scoccimarro E, Cagnazzo C, Fogli P, Manzini E, NAVARRA A, *Decadal Climate Predictions with a coupled OAGCM initialized with oceanic reanalyses*. **Clim Dynam**, vol. 40, p. 1483-1497, ISSN: 0930-7575, 2013.
43. A. Cherchi and NAVARRA A, *Influence of ENSO and of the Indian Ocean Dipole on the Indian summer monsoon variability*, **Clim Dynam**, **41**, 81-103, 2013.
44. E. Scoccimarro, S. Gualdi, A. Bellucci, M. Zampieri and NAVARRA A, *Heavy precipitation events in a warmer climate: results from CMIP5 models*, **J. Climate**, **26**, 7902-7911, 2013.
45. NAVARRA A, J. Tribbia and G. Conti, *The Path Integral Formulation of Climate Dynamics*, **PLoS ONE** **8**(6), 2013.
46. S. Gualdi, S. Somot, L. Li, V. Artale, M. Adani, A. Bellucci, A. Braun, S. Calmanti, A. Carillo, A. Dell'Aquila, M. Déqué, C. Dubois, A. Elizalde, A. Harzallah, D. Jacob, B. L'Hévéder, W. May, P. Oddo, P. Ruti, A. Sanna, G. Sannino, E. Scoccimarro, F. Sevault and NAVARRA A, *The CIRCE Simulations: Regional Climate Change Projections with Realistic Representation of the Mediterranean Sea*, **B. Am. Meteorol. Soc.**, **94**, 65-81, 2013.

47. P. Quevauviller, D. Barcelo, M. Beniston, S. Djordjevic, R.J. Harding, A. Iglesias, R. Ludwig, NAVARRA A, A. Navarro Ortega, O. Mark, R. Roson, D. Sempere, M. Stoffel, H.A. van Lanen and M. Werner, *Integration of research advances in modelling and monitoring in support of WFD river basin management planning in the context of climate change*, **Science of the Total Environment**, 440, 167-177, 2012.
48. S. Materia, S. Gualdi, NAVARRA A and L. Terray, *The effect of Congo River freshwater discharge on Eastern Equatorial Atlantic climate variability*, **Clim. Dynam.**, **39**, 9-10, 2109-2125, 2012.
49. P. Davini, C. Cagnazzo, S. Gualdi and NAVARRA A, *Bidimensional Diagnostics, Variability, and Trends of Northern Hemisphere Blocking*, **J. Climate**, **25**, 19, .6496-6509, 2012.
50. B.C. Weare, C. Cagnazzo, P.G. Fogli, E. Manzini, and NAVARRA A, *Madden-Julian Oscillation in a climate model with a well-resolved stratosphere*, **J. Geophys. Res.**, **117**, 2012.
51. K. Miyakoda, A. Cherchi, NAVARRA A, S. Masina e J. Ploshay, *ENSO and Its Effects on the Atmospheric Heating Processes*, **Journal of the Meteorological Society of Japan**, **90**, N. 1, 35-57, 2012
52. A. Cherchi, S. Masina and NAVARRA A, *Tropical Pacific - North Pacific teleconnection in a coupled GCM: Remote and local effects*, **Int. J. Climatol.**, **32**, 1640-1653, 2012.
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