curriculum vitae et studiorum

Susanna Corti *Principal Scientist at the Institute of Atmospheric Science and Climate (ISAC)* of the Italian National Research Council (CNR)

Academic Degrees

- **1989** : Degree in Physics at the Faculty of Sciences, University of Bologna (final marks 110 out of 110). Final thesis (Tesi di Laurea) on greenhouse effect in the atmosphere and climate sensitivity.
- **1990** : Diploma of the Physics Specialization School at the University of Bologna
- **1994** : Ph.D. in Physics/Geophysics at the University of Bologna - Thesis on low and ultra-low frequency atmospheric variability.

Research experience

Mar 2020 onwards

- ***Principal Scientist*** *at ISAC-CNR* **and coordinator of the "Global Change" unit** in the Earth system science and environmental technologies Department of the CNR.

Apr 2013 –Feb 2020

- *Senior Scientist at ISAC-CNR*. Susanna Corti is the **Coordinator** of the **Climate Dynamics and Variability Research Unit (DIVAC**). DIVAC research activities include the characterization of Earth's climate and of its past, present and future variability (reconstructions and scenarios), the estimate of environmental risks induced by climate change, and the analysis of the fundamental processes of climate dynamics. Susanna Corti is involved in researches on: **Sub-seasonal to decadal climate predictions**, also in the framework of climate services (MEDSCOPE EU-ERA4CS and MSCA-IF projects (see below); **High resolution climate reconstructions and future scenarios** (EU-H2020 PRIMAVERA project (see below); **Climate predictability**; Sources (and limitations) of climate predictability; **Impact of stochastic physical parameterizations** in model simulations of climate variability from sub-seasonal to centennial time-scales; **reconstruction of climate variability and future scenarios over Europe; study of tipping points in climate models.**

Apr 2010 – Mar 2013

- *Consultant at ECMWF* (as part of the team of the European Union project THOR). THOR stands for "Thermohaline Overturning – at Risk?" and is an EU-funded FP7 project that establishes an operational system to monitor and forecast the development of the North Atlantic Thermohaline Circulation (THC) on decadal time scales and to assess its stability and the risk of a breakdown in a changing climate. Two main objectives of the project were: i) To carry out **Initial value decadal predictions** from analysed ocean-atmosphere initial states and assess their reliability and skill. Ii) To **isolate the impact of the initial conditions from the impacts of greenhouse gas**

Nov 2001 – May 2010

- *Staff Scientist at ISAC-CNR* in the section of Dynamic Meteorology and Climate Dynamics. Evaluation of the vertical structure of weather regimes and the significance of any discrepancies between observed regime behaviour and that simulated by the current generation of A-OGCMs. Study of the **modulation of**

atmospheric intraseasonal variability due to boundary forcing on the interannual and decadal timescale.

Jul 1998 – Oct 2001

- *Staff at CINECA*, Consortium of Universities in the Laboratory for numerical Analysis of Meteorological and Oceanographic data (the largest Italian Computing Centre).
  - Statistical analysis of the relationship between variability of surface air temperature and frequency of large-scale atmospheric regimes / teleconnection patterns on the interdecadal time-scale (as part of the European Union project MILLENNIA).
  - Modulation of atmospheric intraseasonal variability by boundary forcing on the interannual and decadal timescale (as part of the European Union project SINTEX).

Apr 1996 – Jun 1998

- *PostDoc at CINECA* (as part of the team of the European Union project PROVOST). Quantification of potential predictability of seasonal fluctuations in climate using ensembles of GCM simulations.

Dec 1993 – Mar 1996

- *Consultant at ECMWF* (as part of the team of the European Union project Short-term Climate Variability). Analysis and interpretation of results from long model integrations on the basis of the behaviour of simple nonlinear systems. Investigation of the dynamical origin of interannual and interdecadal fluctuations in the statistical properties of low-frequency variability analysing the role of internal nonlinear dynamics and the effects of variations in atmospheric forcing arising from the lower boundary.

Teaching Experience (Including Lectures at International Schools)

- Lecturer of Atmospheric Dynamics at the University of Ferrara, Physics Department, for the years 2002/2003 and 2003/2004
- Lecturer of Introduction to the Physics of Atmosphere and Ocean at the University of Padua, Physics Department, for the year 2007/2008
- Lecturer of Global Changes at the University of Bologna, Environmental Sciences Department, for the year 2008/2009
- Lecturer at the ECMWF Training Course in Predictability Diagnostics and Seasonal Forecasting for years 2010-2013. Lecture on "Clustering techniques and their applications"
- Co-Director and Lecturer of the School and Workshop on *"Weather Regimes and Weather Types in the Tropics and Extra-tropics: Theory and Application to Prediction of Weather and Climate*" at the Abdus Salam International Centre for Theoretical Physics (ICTP) held in Miramare, Trieste, Italy in October 21-30 2013. http://cdsagenda5.ictp.trieste.it/full_display.php?ida=a12220
- Lecturer at the Woods Hole Oceanographic Institution (WHOI) for the fifty-sixth year of the Geophysical Fluid Dynamics Program, which has as its central theme "GFD and Climate." The program was held from June 16 through August 22, 2014. I participated for eight days (July 5 through July 12). Lecture title: "On the reliability of multi-year Forecasts of Climate" http://www.whoi.edu/main/gfd/lectures
- Co-Organizer of the "*ICTP/ECMWF/Univ. L'Aquila Workshop on OpenIFS"* at the Abdus Salam International Centre for Theoretical Physics (ICTP) held in Miramare, Trieste, Italy in June 5-9 2017. http://indico.ictp.it/event/7967/

Teaching Qualification (*Abilitazione Scientifica Nazionale*)

Susanna Corti is qualified as Full Professor (Professore ordinario) in Geophysics (sector 04/A4) Bando 2016 (DD n. 1532/2016) from **28/08/2018 to 28/08/2024 AND in Astronomy, Astrophysics, and Earth and Planets Physics (Sector 02/C1)** Bando 2016 (DD n. 1532/2016) **from 11/07/2018 to 11/07/2024**

https://asn16.cineca.it/pubblico/miur/esito-abilitato/02%252FC1/1/5
https://asn16.cineca.it/pubblico/miur/esito-abilitato/04%252FA4/1/5

Editorial Activities

- **Executive Editor of "Climate Dynamics"** (Impact Factor 4.6) since July 2007 (Associate Editor since May 2005).

Other Professional Activities

- **Vice-Chair of the Scientific Advisory Committee (SAC)** of the European Centre for Medium Range Weather Forecasts (**ECMWF**). *The SAC provides the Council with opinions and recommendations on the draft programme of activities of the Centre drawn up by the Director-General and on any other matters submitted by the Council. The 12 members of the SAC are appointed in their personal capacity and are selected from among the scientists of the Member States.* *http://www.ecmwf.int/en/about/who-we-are/governance/sac*
- **Deputy representative of Italy at the Commission for Atmospheric Sciences (CAS) of the World Meteorological Organization (WMO).** *The Commission for Atmospheric Sciences supports research in atmospheric science through the Global Atmospheric Watch and World Weather Research Programmes in order to reduce and mitigate natural disasters, protect the environment and enhance understanding and response to environmental change.*
- **National representative of Climate Monitoring (Copernicus Climate Change Services C3S) for the National Forum of Copernicus Users.** *National participant in the transition activities for the implementation of the Copernicus Climate Service*
- **Lead Author for Chapter 4: Future global climate: scenario-based projections and near-term information of the** Intergovernamental Panel on Climate Change **(IPCC)** Working Group I **(WG1) – The Physical Science Basis –** Sixth Assessment Report **(AR6). Appointed by the co-chairs of WG1 AR6.**
- **Member of the Joint Scientific Committee (JSC) that provides the scientific guidance of the World Climate Research Programme (WCRP) since January 2019.** ***The World Climate Research Programme (WCRP) mission is to facilitate the analysis and prediction of Earth system variability and change for use in an increasing range of practical applications of direct relevance, benefit and value to society. The two overarching objectives of the WCRP are: (i) to determine the predictability of climate; and (ii) to determine the effect of human activities on climate***

Review/Evaluation Experience

- Evaluator of research proposals and reviewer of funded projects for the programme "Environment and Sustainable Development" of the Commission of the European Communities within the V Framework Programme and for the programme "Global Change and Ecosystems" and RTD-NEST within the VI Framework Programme
- Reviewer for the NOAA's Office of Global Program on Climate Variability and Predictability
- Reviewer for the NOAA's Office of Climate Change Detection and Attribution Project
- Reviewer of the IPCC WG1 Fourth and Fifth Assessment Reports
- Reviewer for the European Research Council (ERC) Advanced Grant 6th Call - 2013 call for proposals.
- Member of the Panel of Experts (PoE) for the Belmont Forum evaluations of the "Climate Predictability and Inter-Regional Linkages" call (2015).

International Projects

Principal Investigator in the following projects funded by the European Commission:

- V Framework "Environment and Sustainable Development":
  - PI for CINECA in PROMISE (PRedictability and variability Of Monsoons and the agricultural and hydrological Impacts of climate change) for the years 2000-2001
  - PI for CINECA in PRUDENCE (Prediction of Regional scenarios and Uncertainties for Defining European Climate change risks and Effects) for the years 2001-2002
- VI Framework ""Global Change and Ecosystems":
  - PI for CNR-ISAC in ENSEMBLES (ENSEMBLE-based predictionS of climate changes and their impacts) for the years 2004-2000
- Horizon2020 "H2020-SC5-2014-two-stage "GROWING A LOW CARBON, RESOURCE EFFICIENT ECONOMY WITH A SUSTAINABLE SUPPLY OF RAW MATERIALS:

- PI for CNR-ISAC in PRIMAVERA (PRocess-based climate sIMulation: AdVances in high resolution modelling and European climate Risk Assessment) for the years 2015-2020
- PI for ISAC in MEDSCOPE (MEDiterranean Services Chain based On climate PrEdictions), which is a European Research Area for Climate Services (ERA4CS) project, for the years 2017-2021
- Primary Coordinator in LISTEN (Lost In translation: Strengthening communication skills between real world and climaTe modEls for seasonal to decadal predictioN), which is a H2020-Marie Skłodowska-Curie Individual Fellowship Project (year 2017) hosted by ISAC-CNR
- PI for ISAC in TiPES (Tipping Points in the Earth System) for the years 2019-2023.
- PI for ROADMAP (The Role of ocean dynamics and Ocean-Atmosphere interactions in Driving cliMAte variations and future Projections of impact-relevant extreme events), which is a JPI Ocean/Climate project within H2020, for the years 2020-2023

Selected Publications

a) International Journals

1. Bellomo, K., Meccia, V.L., D'Agostino, R., Fabiano F., Larson S.M., von Hardenberg J., and Corti S. Impacts of a weakened AMOC on precipitation over the Euro-Atlantic region in the EC-Earth3 climate model. *Clim Dyn* (2023). https://doi.org/10.1007/s00382-023-06754-2

2. Simolo, C., Corti, S. Quantifying the role of variability in future intensification of heat extremes. *Nat Commun* **13**, 7930 (2022). https://doi.org/10.1038/s41467-022-35571-0

3. Pérez-Zanón, N., Caron, L.-P., Terzago, S., Van Schaeybroeck, B., Lledó, L., Manubens, N., Roulin, E., Alvarez-Castro, M. C., Batté, L., Bretonnière, P.-A., Corti, S., Delgado-Torres, C., Domínguez, M., Fabiano, F., Giuntoli, I., von Hardenberg, J., Sánchez-García, E., Torralba, V., and Verfaillie, D.: Climate Services Toolbox (CSTools) v4.0: from climate forecasts to climate forecast information, Geosci. Model Dev., 15, 6115–6142, https://doi.org/10.5194/gmd-15-6115-2022, 2022.

4. Di Carlo, E., Ruggieri, P., Davini, P., Tibaldi S. and Corti S., ENSO teleconnections and atmospheric mean state in idealised simulations. *Clim Dyn* (2022). https://doi.org/10.1007/s00382-022-06261-w

5. Ghinassi, P., Fabiano, F., and Corti, S. (2022): How well is Rossby wave activity represented in the PRIMAVERA coupled simulations?, Weather Clim. Dynam., 3, 209–230, https://doi.org/10.5194/wcd-3-209-2022.

6. Ascoli, D, Hacket Pain, Andrew , Pearse, I, Vacchiano, G, Corti, S and Davini, P (2021) *Modes of climate variability bridge proximate and evolutionary mechanisms of masting.* Philosophical Transactions of the Royal Society B: Biological Sciences. **https://doi.org/10.1098/rstb.2020.0380**

7. Bellomo, K., Angeloni, M., Corti, S. *et al.* Future climate change shaped by inter-model differences in Atlantic meridional overturning circulation response. *Nat Commun* **12,** 3659 (2021). https://doi.org/10.1038/s41467-021-24015-w

8. Volpi Danila, Meccia Virna L., Guemas Virginie, Ortega Pablo, Bilbao Roberto, Doblas-Reyes Francisco J., Amaral Arthur, Echevarria Pablo, Mahmood Rashed, Corti Susanna: A Novel Initialization Technique for Decadal Climate Predictions, DOI=10.3389/fclim.2021.681127, 2021

9. Weigel, K., Bock, L., Gier, B. K., Lauer, A., Righi, M., Schlund, M., Adeniyi, K., Andela, B., Arnone, E., Berg, P., Caron, L.-P., Cionni, I., Corti, S., Drost, N., Hunter, A., Lledó, L., Mohr, C. W., Paçal, A., Pérez-Zanón, N., Predoi, V., Sandstad, M., Sillmann, J., Sterl, A., Vegas-Regidor, J., von Hardenberg, J., and Eyring, V.: Earth System Model Evaluation Tool (ESMValTool) v2.0 – diagnostics for extreme events, regional and impact evaluation, and analysis of Earth system models in CMIP, Geosci. Model Dev., 14, 3159–3184, https://doi.org/10.5194/gmd-14-3159-2021, 2021.

10. Vidale, P. L., Hodges, K., Vannière, B., Davini, P., Roberts, M. J., Strommen, K., Weisheimer, A., Plesca, E., & Corti, S. Impact of Stochastic Physics and Model Resolution on the Simulation of Tropical Cyclones in Climate GCMs, 2021 *Journal of Climate*, *34*(11), 4315-4341.

11. Fabiano, F., Meccia, V. L., Davini, P., Ghinassi, P., and Corti, S.: A regime view of future atmospheric circulation changes in northern mid-latitudes, Weather Clim. Dynam., 2021 2, 163–180, https://doi.org/10.5194/wcd-2-163-2021.

12. Giuntoli, I., Fabiano, F. & Corti, S. Seasonal predictability of Mediterranean weather regimes in the Copernicus C3S systems. 2021 - *Clim Dyn*. https://doi.org/10.1007/s00382-021-05681-4

13. Haarsma, R., Acosta, M., Bakhshi, R., Bretonnière, P.-A., Caron, L.-P., Castrillo, M., Corti, S., Davini, P., Exarchou, E., Fabiano, F., Fladrich, U., Fuentes Franco, R., García-Serrano, J., von Hardenberg, J., Koenigk, T., Levine, X., Meccia, V. L., van Noije, T., van den Oord, G., Palmeiro, F. M., Rodrigo, M., Ruprich-Robert, Y., Le Sager, P., Tourigny, E., Wang, S., van Weele, M., and Wyser, K.: HighResMIP versions of EC-Earth: EC-Earth3P and EC-Earth3P-HR – description, model computational performance and basic validation. 2020 Geosci. Model Dev., 13, 3507–3527, https://doi.org/10.5194/gmd-13-3507-2020

14. Molteni, F., Roberts, C.D., Senan, R. Keenley S.P.E, Bellucci A., Corti S., Fuentes Franco R., Haarsam R., Levine X., Putrasahan D., Roberts M. J., and Terray L. Boreal-winter teleconnections with tropical Indo-Pacific rainfall in HighResMIP historical simulations from the PRIMAVERA project. 2020. https://doi.org/10.1007/s00382-020-05358-4

15. Fabiano, F., Christensen, H.M., Strommen, K. P Athanasiadis, A Baker, R Schiemann, and S. Corti, 2020. Euro-Atlantic weather Regimes in the PRIMAVERA coupled climate simulations: impact of resolution and mean state biases on model performance. *Clim Dyn*. https://doi.org/10.1007/s00382-020-05271-w

16. Meccia, V. L., Fabiano, F., Davini P., & Corti S. 2020. Stochastic parameterizations and the climate response to external forcing: An experiment with EC-Earth. *Geophysical Research Letters*, *47*, e2019GL085951. https://doi.org/10.1029/2019GL085951

17. Strommen, K., Mavilia, I., Corti, S., Matsueda, M., Davini, P.,von Hardenberg, J., P-L Vidale and R. Mizuta 2019. The sensitivity of Euro-Atlantic regimes to model horizontal resolution. *Geophysical Research Letters*, *46*, 7810–7818. https://doi.org/10.1029/2019GL082843

18. Yang, C., Christensen, H.M., Corti S., von Hardenberg J. and Davini P., 2019. *The impact of stochastic physics on the El Niño Southern Oscillation in the EC-Earth coupled model* Clim Dyn 53: 2843. https://doi.org/10.1007/s00382-019-04660-0

19. Davini P., S. Corti, F. D'Andrea, G. Riviere, J. von Hardenberg 2017, *Improved winter European atmospheric blocking frequencies in high-resolution global climate simulations*, J. Adv Model Earth Sy. 9, 2615–2634. https://doi.org/10.1002/2017MS001082.

20. Watson, P. A. G., J. Berner, S. Corti, P. Davini, J. von Hardenberg, C. Sanchez, A. Weisheimer, and T. N. Palmer 2017, *The impact of stochastic physics on tropical rainfall variability in global climate models on daily to weekly time scales*, J. Geophys. Res. Atmos., 122, 5738–5762, doi:10.1002/2016JD026386.

21. Davini, P., von Hardenberg, J., Corti, S., Christensen, H. M., Juricke, S., Subramanian, A., Watson, P. A. G., Weisheimer, A., and Palmer, T. N., 2017: *Climate SPHINX: evaluating the impact of resolution and stochastic physics parameterisations in the EC-Earth global climate model*, Geosci. Model Dev., 10, 1383-1402, doi:10.5194/gmd-10-1383-2017.

22. Hannachi, A., D. M. Straus, C. L. E. Franzke, S. Corti, and T. Woollings 2017, *Low-frequency nonlinearity and regime behavior in the Northern Hemisphere extratropical atmosphere*, *Rev. Geophys., 55,* 1–36, doi:10.1002/2015RG000509.

23. Haarsma R.J. , M. Roberts, P. L. Vidale, C. A. Senior, A. Bellucci, Q. Bao, P. Chang, S. Corti, N. S. Fučkar, V. Guemas, J. von Hardenberg, W. Hazeleger, C. Kodama, T. Koenigk, L. R. Leung, J. Lu, J.-J. Luo, J. Mao, M. S. Mizielinsk, R. Mizuta, P. Nobre, M. Satoh, E. Scoccimarro, T. Semmler, J. Small, and J.-S. von Storch, 2016: *High Resolution Model Intercomparison Project (HighResMIP v1.0) for CMIP6*. Geosci. Model Dev., 9, 4185–4208, doi:10.5194/gmd-9-4185-2016

24. Dell'Aquila, A., S. Corti, A. Weisheimer, H. Hersbach, C. Peubey, P. Poli, P. Berrisford, D. Dee, and A. Simmons, 2016: "*Benchmarking Northern Hemisphere midlatitude atmospheric synoptic variability in centennial reanalysis and numerical simulations"*, Geophys. Res. Lett., 43, doi:10.1002/2016GL068829.

25. Davini P., J. von Hardenberg and S. Corti, 2015: "*Tropical origin for the impacts of the Atlantic Multidecadal Variability on the Euro-Atlantic climate*." Env. Res. Let. doi:10.1088/1748-9326/10/9/094010

26. Corti S., Tim Palmer, Magdalena Balmaseda, Antje Weisheimer, Sybren Drijfhout, Nick Dunstone, Wilco Hazeleger, Jürgen Kröger, Holger Pohlmann, Doug Smith, Jin-Song von Storch, and Bert Wouters, 2015: "*Impact of Initial Conditions versus External Forcing in Decadal Climate Predictions: A Sensitivity Experiment."* J. Climate, 28, 4454–4470.doi: http://dx.doi.org/10.1175/JCLI-D-14-00671.1

27. Ferranti, L., Corti, S. and Janousek, M. 2015, "*Flow-dependent verification of the ECMWF ensemble over the Euro-Atlantic sector*." Q.J.R. Meteorol. Soc., 141: 916–924. doi: 10.1002/qj.2411

28. Weisheimer, A., S. Corti, T.N. Palmer and F. Vitart, 2014 "*Addressing model error through atmospheric stochastic physical parameterisations: Impact on the coupled ECMWF seasonal forecasting syste*m" *Philos. T. Roy. Soc. A* doi: 10.1098/rsta.2013.0290

29. Meehl Gerald A., Lisa Goddard, George Boer, Robert Burgman, Grant Branstator, Christophe Cassou, Susanna Corti, Gokhan Danabasoglu, Francisco Doblas-Reyes, Ed Hawkins, Alicia Karspeck, Masahide Kimoto, Arun Kumar, Daniela Matei, Juliette Mignot, Rym Msadek, Holger Pohlmann, Michele Rienecker, Tony Rosati, Edwin Schneider, Doug Smith, Rowan Sutton, Haiyan Teng, Geert Jan van Oldenborgh, Gabriel Vecchi, and Stephen Yeager, 2014: *Decadal Climate Prediction: An Update from the Trenches*. Bull. Am. Met. Soc DOI:http://dx.doi.org/10.1175/BAMS-D-12-00241.1

30. Hazeleger W., B. Wouters, G.J. van Oldenborgh, S. Corti, T. Palmer, D. Smith, N. Dunstone, J. Kröger, H. Pohlmann, J.-S. von Storch 2013 "*Predicting multi-year North Atlantic Ocean variability*." J. Geophys. Res. Ocean – DOI:10.1002/jgrc.20117

31. Hazeleger, W., V. Guemas, B. Wouters, S.Corti, I. Andreu-Burillo F.J. Doblas-Reyes, K. Wyser, and M. Caian, 2013: "*Multiyear climate predictions using two initialisation strategies"*. Geoph. Res. Lett.. DOI: 10.1002/grl.50355

32. Guemas, V., S. Corti, J. García-Serrano, F. Doblas-Reyes, M. Balmaseda, and L. Magnusson, 2013: "*The Indian Ocean: the region of highest skill worldwide in decadal climate prediction*." J. Climate. 26, 726-739 doi:10.1175/JCLI-D-12-00049.1

33. Magnusson L, M Alonso-Balmaseda, S Corti, F Molteni and T Stockdale, 2013 "*Evaluation of forecast strategies for seasonal and decadal forecasts in presence of systematic model errors*." Clim Dyn 41, 2393-2409 DOI 10.1007/s00382-012-1599-2

34. Corti, S., A. Weisheimer, T. N. Palmer, F. J. Doblas-Reyes, and L. Magnusson 2012, "*Reliability of decadal predictions"* Geophys. Res. Lett., 39, L21712, doi:10.1029/2012GL053354.

35. Dawson, A., T. N. Palmer, and S. Corti 2012, *"Simulating regime structures in weather and climate prediction models*", Geophys. Res. Lett., 39, L21805, doi:10.1029/2012GL053284

36. Straus D. M., S. Corti and F. Molteni, 2007: *Circulation Regimes: Chaotic Variability vs. SST-Forced Predictability*. Journal of Climate, **20**, 2251-2272

37. Molteni, F. S. Corti, L. Ferranti and J. M. Slingo, 2003: "*Predictability experiments for the Asian summer monsoon: impact of SST anomalies on interannual and intraseasonal variability."* Journal of Climate, **16**, 4001-4021

38. Corti S., S. Gualdi and A. Navarra, 2003 *"Analysis of the midlatitude weather regimes in the 200-year control integration of the SINTEX model".* Annals of Geophysics, **46**, 27-37

39. Corti, S., F. Molteni and C. Brankovic, 2000 *"Predictability of snow-depth anomalies over Eurasia and associated circulation patterns"*. Q. J. R. Meteorol. Soc. **126**, 241-262

40. Cerlini P.B., S. Corti and S. Tibaldi, 1999 *"An intercomparison between low-frequency variability indices".* Tellus **51A**, 773-789

41. Corti S., F. Molteni and T. N. Palmer, 1999 *"Signature of recent climate change in frequencies of natural atmospheric circulation regimes".* Nature **398**, 799-802

42. Molteni F. and S. Corti, 1998 *"Long term fluctuations in the statistical properties of low-frequency variability: dynamical origin and predictability"* Q. J. R. Meteorol. Soc. **124**, 495-526

43. Corti S., A. Giannini, S. Tibaldi and F. Molteni, 1997: *"Patterns of low-frequency variability in a three level quasi-geostrophic model".* Climate Dynamics **13**, 883-904

44. Corti S. and T.N. Palmer, 1997 *"Sensitivity analysis of atmospheric low-frequency variability"* Q. J. R. Meteorol. Soc. **123**, 2425-2447

45. Palmer T.N., R. Buizza, F. Molteni, Y.Q. Chen, S. Corti, 1994: "*Singular vectors and the predictability of weather and climate*" Phil. Trans. Roy. Soc. Lond. A(1994) **348**, 459-475

b) Special Volumes

1. Arias, P.A., N. Bellouin, E. Coppola, R.G. Jones, G. Krinner, J. Marotzke, V. Naik, M.D. Palmer, G.-K. Plattner, J. Rogelj, M. Rojas, J. Sillmann, T. Storelvmo, P.W. Thorne, B. Trewin, K. Achuta Rao, B. Adhikary, R.P. Allan, K. Armour, G. Bala, R. Barimalala, S. Berger, J.G. Canadell, C. Cassou, A. Cherchi, W. Collins, W.D. Collins, S.L. Connors, S. Corti, F. Cruz, F.J. Dentener, C. Dereczynski, A. Di Luca, A. Diongue Niang, F.J. Doblas-Reyes, A. Dosio, H. Douville, F. Engelbrecht, V. Eyring, E. Fischer, P. Forster, B. Fox-Kemper, J.S. Fuglestvedt, J.C. Fyfe, N.P. Gillett, L. Goldfarb, I. Gorodetskaya, J.M. Gutierrez, R. Hamdi, E. Hawkins, H.T. Hewitt, P. Hope, A.S. Islam, C. Jones, D.S. Kaufman, R.E. Kopp, Y. Kosaka, J. Kossin, S. Krakovska, J.-Y. Lee, J. Li, T. Mauritsen, T.K. Maycock, M. Meinshausen, S.-K. Min, P.M.S. Monteiro, T. Ngo-Duc, F. Otto, I. Pinto, A. Pirani, K. Raghavan, R. Ranasinghe, A.C. Ruane, L. Ruiz, J.-B. Sallée, B.H. Samset, S. Sathyendranath, S.I. Seneviratne, A.A. Sörensson, S. Szopa, I. Takayabu, A.-M. Tréguier, B. van den Hurk, R. Vautard, K. von Schuckmann, S. Zaehle, X. Zhang, and K. Zickfeld, 2021: **Technical Summary**. In ***Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*** [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33–144, doi:10.1017/9781009157896.002.

2. Lee, J.-Y., J. Marotzke, G. Bala, L. Cao, S. Corti, J.P. Dunne, F. Engelbrecht, E. Fischer, J.C. Fyfe, C. Jones, A. Maycock, J. Mutemi, O. Ndiaye, S. Panickal, and T. Zhou, 2021: **Future Global Climate: Scenario-Based Projections and Near-Term Information. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*** [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 553–672, doi:10.1017/9781009157896.006.
3. Straus, D., Molteni, F., & Corti, S. 2017. Atmospheric Regimes: The Link between Weather and the Large-Scale Circulation. In C. Franzke & T. O'Kane (Eds.), *Nonlinear and Stochastic Climate Dynamics* (pp. 105-135). Cambridge: Cambridge University Press. doi:10.1017/9781316339251.005

4. Corti S., 2013 Contributing author to: IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change – Chapter 11: Near-term Climate Change: Projections and Predictability. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp

5. Corti S., 2008: *Predictability of Climate Change.* In: "*Global climate change and the ecology of the next decade*" (Proceedings of the workshops "Global Change a 9 anni dagli accordi di Kyoto" Domus Galileiana – CISSC May 2006, May 2007 Pisa) G. Santangelo and L. Fronzoni Eds., ETS

6. Molteni, F., Kucharski, F., & Corti, S. 2006. On the predictability of flow-regime properties on interannual to interdecadal timescales. In T. Palmer & R. Hagedorn (Eds.), *Predictability of Weather and Climate* (pp. 365-390). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511617652.015

c) Popular science

1. Annalisa Cherchi and Susanna Corti, 2022 ***"Clima 2050 – La matematica e la fisica per il futuro del Sistema Terra"*** Volume della Collana *Chiavi di Lettura*, Zanichelli Editore, Bologna

2. Elisa Palazzi and Susanna Corti, 2016 Ël niño: dal pacifico Equatorial all'intero globo" in Sapere , numero 6, novembre/dicembre 2016 DOI: **10.12919/sapere.2016.06.2**

3. Corti S., A. Provenzale e S. Fuzzi, 2007: "Tempi moderni" in Sapere, year 73, No. 4, pp 62-71

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