

Enrico Scoccimarro

International peer-reviewed Publications (59 papers + 8 book chapters) List

Papers (59)

1. Manzella G.M.R., **Scoccimarro E.**, Pinardi N. and Tonani M.: Improved near real time data management procedures for the Mediterranean Ocean Forecasting System – Voluntary Observing Ship program.
Special Issue EGS journal, *Annales Geophysicae* (January 2003)
2. Pinardi N., Bonazzi A., **Scoccimarro E.**, Dobricic S., Navarra A., Ghiselli A., Veronesi P.: Very Large ensemble ocean forecasting experiment using the Grid computing infrastructure.
Bulletin of American Meteorological Society DOI:10.1175/2008BAMS2511.1
(June 2008)
3. Gualdi S., **Scoccimarro E.**, Navarra A.:
Changes in Tropical Cyclone Activity due to Global Warming: Results from a High-Resolution Coupled General Circulation Model.
Journal of Climate DOI:10.1175/2008JCLI1921.1 (October 2008)
4. Bellucci A., Gualdi S., **Scoccimarro E.**, Navarra A.: NAO-Ocean Circulation Interactions in a Coupled General Circulation Model.
Climate Dynamics DOI:10.1007/s00382-008-0408-4 (December 2008)
5. Williams P.D., Guyliardi E., Madec G., Gualdi S., **Scoccimarro E.** :
The role of mean ocean salinity in climate.
Dynamics of Atmospheres and Oceans doi:10.1016/j.dynatmoce.2009.02.001
(2009)
6. Alessandri A., Borrelli A, Gualdi S., **Scoccimarro E.**, Masina S.: Tropical cyclone count forecasting using a dynamical Seasonal Prediction System: sensitivity to improved ocean initialization.
Journal of Climate, doi: 10.1175/2010JCLI3585.1 (2011)
7. Vichi M., E. Manzini, P.G. Fogli, A. Alessandri, L. Patara, S. Masina, S. Gualdi, E. **Scoccimarro** and A. Navarra: Global and regional ocean carbon uptake and climate change: Sensitivity to an aggressive mitigation scenario.
Climate Dynamics,doi:10.1007/s00382-011-1079-0 (2011)
8. **Scoccimarro E.**, S. Gualdi, A. Bellucci, A. Sanna , P.G. Fogli,E. Manzini, M. Vichi, P. Oddo, A. Navarra (2011), Effects of Tropical Cyclones on Ocean Heat Transport in a High Resolution Coupled General Circulation Model.
Journal of Climate, doi: 10.1175/2011JCLI4104.1 (2011)
9. Dubois C., S. Somot, S. Calmanti, A. Carillo, M. Déqué, A. Dell'Aquila, A. Elizalde Arellano, S. Gualdi, D. Jacob, B. L'Hévéder , L.Li, , P. Oddo, E. **Scoccimarro**, F. Sevault : Future projections of the surface heat and water budgets of the Mediterranean Sea in an ensemble of coupled atmosphere-ocean regional climate models.
Climate Dynamics, doi: 10.1007/s00382-011-1261-4 (2012)

10. Walsh K., S. Lavender, E. **Scoccimarro** and H. Murakami. Resolution dependence of tropical cyclone formation in CMIP3 and finer resolution models
Climate Dynamics, 40, 585-599 (2012)
11. Gualdi S., 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 A. Navarra: The CIRCE simulations: a new set of regional climate change projections performed with a realistic representation of the Mediterranean Sea.
Bulletin of American Meteorological Society, 10.1175/BAMS-D-11-00136.1 (2012)
12. **Scoccimarro E.**, S. Gualdi, A. Navarra: Tropical Cyclone Effects on Arctic Sea Ice Variability.
Geophysical Research Letters, 39, L17704, doi:10.1029/2012GL052987 (2012)
13. Bellucci A., S. Gualdi, S. Masina, A. Storto, **E. Scoccimarro**, C. Cagnazzo, P. Fogli, E. Manzini, and A. Navarra: Decadal Climate Predictions with a coupled OAGCM initialized with oceanic reanalyses.
Climate dynamics doi: 10.1007/s00382-012-1468-z (2013)
14. Villarini G. **E. Scoccimarro**, S. Gualdi: Projections of Heavy Rainfall over the Central US based on CMIP5 Models.
Atmospheric Science Letters, DOI: 10.1002/asl.440 (2013)
15. **Scoccimarro E.**, S. Gualdi, A. Bellucci, M. Zampieri, A. Navarra: Heavy precipitation events in a warmer climate: results from CMIP5 models.
Journal of Climate, DOI: 10.1175/JCLI-D-12-00850.1 (2013)
16. Zampieri M., **E. Scoccimarro**, S. Gualdi: Atlantic influence on spring snowfall over Alps in the last 150 years.
Environmental Research Letters 8 (2013) 034026 (2013)
17. Toreti A., P. Naveau, M. Zampieri, A. Schindler, **E. Scoccimarro**, E. Xoplaki, H. A. Dijkstra, S. Gualdi and J. Luterbacher: Projections of global changes in precipitation extremes from CMIP5 models
Geophysical Research Letters, doi: 10.1002/grl.50940 (2013)
18. Villarini G., D.A. Lavers, **E. Scoccimarro**, M. Zhao, M.F. Wehner, G. Vecchi, T. Knutson: Sensitivity of Tropical Cyclone Rainfall to Idealized Global Scale Forcings
Journal of Climate, doi: 10.1175/JCLI-D-13-00780.1 in press (2014)
19. **Scoccimarro E.**, S. Gualdi, G. Villarini, G. Vecchi, M. Zhao, K. Walsh, A. Navarra: Intense precipitation events associated with landfalling tropical cyclones in response to a warmer climate and increased CO₂.
Journal of Climate, doi: 10.1175/JCLI-D-14-00065.1 (2014)
20. Zampieri M., **E. Scoccimarro**, S. Gualdi, A. Navarra: Observed shift towards earlier spring discharge in the main Alpine rivers. *Science of the Total Environment* 10.1016/j.scitotenv.2014.06.036 (2014)

21. M. Horn; K. Walsh; M. Zhao; S. Camargo; **E. Scoccimarro**; H. Murakami; H. Wang; A. Ballinger; A. Kumar; D. Shaevitz; J. Jonas; K. Oouchi: Tracking Scheme Dependence of Simulated Tropical Cyclone Response to Idealized Climate Simulations.
Journal of Climate, doi: 10.1175/JCLI-D-14-00200.1 (2014)
22. Walsh K., S.J. Camargo, G.A. Vecchi, A.S. Daloz, J. Elsner, K. Emanuel, M. Horn, Y-K Lim, M. Roberts, C. Patricola, **E. Scoccimarro**, et al.: Hurricanes and climate: the U.S. CLIVAR working group on hurricanes.
Bulletin of American Meteorological Society, doi: 10.1175/BAMS-D-13-00242.1 (2014)
23. D. Shaevitz, S.J. Camargo, A. H. Sobel, J.A. Jonas, D. Kim, A. Kumar, T.E. LaRow, Y-K Lim, H. Murakami, K. Reed, M.J. Roberts, **E. Scoccimarro**, P.L. Vidale, H. Wang, M. F. Wehner, M. Zhao, N. Henderson: Characteristics of tropical cyclones in high-resolution models in the present climate.
Journal of Advances in Modeling Earth Systems , doi: 10.1002/2014MS000372 (2014)
24. Daloz A.S., S. J. Camargo, J. P. Kossin, K. Emanuel, J.A. Jonas, M. Horn, D. Kim, T. LaRow, Y.-K. Lim, C.M. Patricola, M. Roberts, **E. Scoccimarro**, D. Shaevitz, P.L. Vidale, H. Wang, M. Wehner and M. Zhao: Cluster analysis of explicitly and downscaled simulated North Atlantic tropical cyclone tracks
Journal of climate, doi: 10.1175/JCLI-D-13-00646.1 (2014)
25. Schindler A., A Toretì, M. Zampieri, **E. Scoccimarro**; S. Gualdi; S. Fukutome; E. Xoplaki; J. Luterbacher: On the internal variability of simulated daily precipitation
Journal of Climate, doi: 10.1175/JCLI-D-14-00745.1 (2015)
26. Villarini G., **E. Scoccimarro**, K.D. White, J.R. Arnold, K.E. Schilling, J. Gosh: Projected Changes in Discharge in an Agricultural Watershed in Iowa.
Journal of the American Water Resources Association, 10.1111/1752-1688.12318. (2015)
27. **Scoccimarro E.**, S. Gualdi, A. Bellucci, M. Zampieri, A. Navarra: Heavy precipitation events over the Euro-Mediterranean region in a warmer climate: results from CMIP5 models.
Regional Environmental Change, doi:10.1007/s10113-014-0712-y (2015)
28. **Scoccimarro E.**, G. Villarini, M. Vichi, M. Zampieri, P.G. Fogli, A. Bellucci, S. Gualdi: Projected changes in intense precipitation over Europe at the daily and sub-daily time scales
Journal of Climate, DOI: 10.1175/JCLI-D-14-00779.1. (2015)
29. Krichak S.O., S. B. Feldstein, P. Alpert, S. Gualdi, **E. Scoccimarro**, and J.-I. Yano: Discussing the role of tropical and subtropical moisture sources in cold season extreme precipitation events in the Mediterranean region from a climate change perspective
Nat. Hazards Earth Syst. Sci., 16, 269-285, 2016. doi:10.5194/nhess-16-269-2016. (2015)
30. Cavicchia L. **E. Scoccimarro**, S. Gualdi et al.: Mediterranean extreme precipitation: a multi-model assessment.
Climate Dynamics, doi:10.1007/s00382-016-3245-x (2016)

31. Zampieri M., S. Russo, S. di Sabatino, M. Michetti, E. Scoccimarro, S. Gualdi: Global estimation of heat wave magnitudes from 1901 to 2010 and possible implications for the river discharge of the Alps.
Science of the Total Environment (accepted) (2016)
32. Zampieri M. , Toreti A., Schindler A. , **Scoccimarro E.** , Gualdi S.: Atlantic multi-decadal oscillation influence on weather regimes over Europe and the Mediterranean in spring and summer.
Global and Planetary Change , doi: 10.1016/j.gloplacha.2016.08.014 (2016)
33. 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. Mizielinski, R. Mizuta, P. Nobre, M. Satoh, **E. Scoccimarro**, T. Semmler, J. Small, J.-S. von Storch: High Resolution Model Intercomparison Project (HighResMIP).
Geosci. Model Dev. Discuss., doi:10.5194/gmd-2016-66 (2016)
34. **Scoccimarro E.**, P.G. Fogli. K. Reed, S. Gualdi, S.Masina, A. Navarra: Tropical cyclone interaction with the ocean: the role of high frequency (sub-daily) coupled processes.
Journal of Climate , doi: 10.1175/JCLI-D-16-0292.1 (2017)
35. Lozano O.M., Ager.A, Arca.B. Salis M., Spano D., Urdiroz F.A., Del Giudice L., **Scoccimarro E.**: Assessing climate change impacts on wildfire exposure in Mediterranean areas.
Risk Analysis,doi: 10.1111/risa.12739 (2017)
36. Walsh K., P. Govekar, A.Babanin, M. Ghantous, P.Spence, **E. Scoccimarro**: The effect on simulated ocean climate of a parameterization of unbroken wave-induced mixing incorporated into the k-epsilon mixing scheme.
Journal of Advances in Modeling Earth Systems doi: 10.1002/2016MS000707 (2017)
37. Zhang W., G. Villarini, **E. Scoccimarro**, G. Vecchi: Stronger Influences of Increased CO₂ on Sub-daily Precipitation Extremes than at the Daily Scale. *Geophysical Research Letters*. Doi: 10.1002/2017GL074024 (2017)
38. Nakamura J., S.J. Camargo, A. H. Sobel, N. Henderson, K.A. Emanuel, A. Kumar, T. E. LaRow, H. Murakami, M. J. Roberts, **E. Scoccimarro**, P.L. Vidale, H. Wang, M. F. Wehner, M. Zhao: Western North Pacific tropical cyclone model tracks in present and future climates. *Journal of Geophysical Research*. Doi:10.1002/2017JD027007 (2017)
39. Scoccimarro E., P.G. Fogli, S. Gualdi: The role of humidity in determining perceived temperature extremes scenarios in Europe. *Environmental Research Letters*. Doi: 10.1088/1748-9326/aa8cdd (2017)
40. Serpelloni E., F. Pintori, A. Gualandi, **E. Scoccimarro**, A. Cavaliere, L. Anderlini, M.E. Belardinelli, M. Todesco: Hydrologically-induced karst deformation: insights from GPS measurements in the Adria-Eurasia plate boundary zone. *Journal of Geophysical Research*. Doi: 10.1002/2017JB015252 (2018)
41. Roberts, M., P. Vidale, C. Senior, H. Hewitt, C. Bates, S. Berthou, P. Chang, H. Christensen, S. Danilov, M. Demory, S. Griffies, R. Haarsma, T. Jung, G. Martin, S. Minobe, T. Ringler, M. Satoh, R. Schiemann, **E. Scoccimarro**, G. Stephens, and M. Wehner: The benefits of global high resolution for climate simulation: process-understanding and the enabling of

stakeholder decisions at the regional scale. *Bull. Amer. Meteor. Soc.* doi:10.1175/BAMS-D-15-00320.1 (2018)

42. **Scoccimarro E.**, S. Gualdi, S.O. Krichack, 2018: Extreme precipitation events over north-western Europe: getting water from the tropics. *Annals of Geophysics*, doi: 10.4401/ag-7772. (2018)

43. Collalti A., Trotta C., Keenan T.F., Ibrom A., Lamberty B.B., Grote R., Vicca S., Reyer C.P.O., Migliavacca M., Veroustraete F., Anav A., Campioli M., **E. Scoccimarro**, Sigut L., Grieco E., Cescatti A., Matteucci G.: Thinning can reduce losses in carbon use efficiency and carbon stocks in managed forests under warmer climate. *Journal of Advances in Modeling Earth Systems*. Doi: 10.1029/2018MS001275 (2018)

44. **Scoccimarro E.**, Bellucci A., Storto A., Gualdi S., Masina S., Navarra A.: Remote sub-surface ocean temperature as a predictor of Atlantic hurricane activity. *PNAS* doi:10.1073/pnas.1810755115 (2018)

45. Cherchi A., T. Lovato, P.G. Fogli, D. Peano, S. Gualdi, S. Masina, **E. Scoccimarro**, S. Materia, D. Iovino, and A. Navarra: Global mean climate and main patterns of variability in the CMCC-CM2 coupled model. *Journal of Advances in Modeling Earth Systems*. Doi:10.1029/2018MS001369 (2018)

46. Tedesco L. Vichi M., **E. Scoccimarro**: Sea-ice algal phenology in a warmer Arctic. *Science Advances*. Doi: 10.1126/sciadv.aav4830 (2019)

47. Elliott L.R., M. P. White, C. Sarran, J. Grellier, J. K. Garrett, **E. Scoccimarro**, A. J. Smalley, L. E. Fleming: The effects of meteorological conditions and daylight on nature-based recreational physical activity in England. *Urban Forestry & Urban Greening*. doi:https://doi.org/10.1016/j.ufug.2019.05.005 (2019)

48. Zhang W., Villarini G., **E. Scoccimarro**: Reduced Extremes of Sub-daily Temperature Swings during the Boreal Summer in the Northern Hemisphere. *International Journal of Climatology*. Doi: 10.1002/joc.6222. (2019)

49. Zampieri M., Ceglar A., Manfron G., Toreti A., Duveiller G., Romani M., Rocca C., **Scoccimarro E.**, Podrascanin Z., Djurdjevic V.: Adaptation and sustainability of water management for rice agriculture in temperate regions: the Italian case study. *Land Degradation and Development*. Doi: 10.1002/ldr.3402. (2019)

50. Morrison A., Villarini G., Zhang W., **Scoccimarro E.**: Projected changes in extreme precipitation at sub-daily and daily time scales. *Global and Planetary Change*. Doi: https://doi.org/10.1016/j.gloplacha.2019.103004. (2019)

51. Moon Y., K. D. Kim, S. J. Camargo, A. A. Wing, A. H. Sobel, H. Murakami, K. A. Reed, **E. Scoccimarro**, G. A. Vecchi, M. F. Wehner, C.M. Zarzycki, M. Zhao: Azimuthally averaged wind and thermodynamic structures of tropical cyclones in global climate models and their sensitivity to horizontal resolution. *Journal of Climate*. Doi: 10.1175/JCLI-D-19-0172.1 (2019)

52. Roberts, M. J., J. Camp, J. Seddon, P. L. Vidale, K. Hodges, B. Vanniere, J. Mecking, R. Haarsma, A. Bellucci, **E. Scoccimarro**, L.-P. Caron, F. Chauvin, L. Terray, S. Valcke, M.-P. Moine, D. Putrasahan, C. Roberts, R. Senan, C. Zarzycki, P. Ullrich, 2019: Impact of model

resolution on tropical cyclone simulation using the HighResMIP-PRIMAVERA multi-model ensemble. *J. Climate*. <https://doi.org/10.1175/JCLI-D-19-0639.1> (2020)

53. Zampieri M., B. Grizzetti, M. Meroni, **E. Scoccimarro**, A. Vrieling, G. Naumann and A. Toreti: Annual Green Water Resources and Vegetation Resilience Indicators: Definitions, Mutual Relationships, and Future Climate Projections. *Remote Sensing* <https://doi.org/10.3390/rs11222708> (2020)

54. **Scoccimarro E.**, Gualdi S., Bellucci A. , Peano D., Cherchi A., Vecchi G.A. , Navarra A.: The typhoon-induced drying of the Maritime Continent. *PNAS* doi: 10.1073/pnas.1915364117. (2020).

55. Camargo, S.J., C.F. Giulivi, A.H. Sobel, A.A. Wing, D. Kim, Y. Moon, J.D.O. Strong, A.D. Del Genio, M. Kelley, H. Murakami, K.A. Reed, **E. Scoccimarro**, G.A. Vecchi, M.F. Wehner, C. Zarzycki, and M. Zhao: Characteristics of model tropical cyclone climatology and the large-scale environment. *J. Climate*, doi:10.1175/JCLI-D-19-0500.1. (2020)

56. Jiaxiang, Gao ; Minobe, Shoshiro; Roberts, Malcolm; Haarsma, Reindert; Putrasahan, Dian; Roberts, Christopher; **Scoccimarro, E.**; Terray, Laurent; Vannière, Benoît; Vidale, Pier Luigi: Influence of model resolution on bomb cyclones revealed by HighResMIP-PRIMAVERA simulations. *Env. Res. Letters*. Doi: <https://doi.org/10.1088/1748-9326/ab88fa> (2020)

57. Boe J., L. Terray, M-P. Moine, S. Valcke, A. Bellucci, S. Drijfhout, R. J. Haarsma, K. Lohmann, D. Putrasahan, C. D. Roberts, M. J. Roberts, **E. Scoccimarro**, J. Seddon, R. Senan and K. Wyser :Past long-term summer warming over western Europe in new generation climate models: role of large-scale atmospheric circulation. *Env. Res. Letters*. Doi 10.1088/1748-9326/ab8a89 (2020)

58. Zhang, W., G. Villarini, **E. Scoccimarro**, and F. Napolitano: Examining the Precipitation Associated with Medicanes in the High-Resolution ERA-5 Reanalysis Data. *International Journal of Climatology*, doi: 10.1002/joc.6669. (2020)

59. Bador, M., Boé, J., Terray, L., Alexander, L. V., Bellucci, A., Haarsma, R., Koenigk, T., Moine, M.-P., Lohmann, K., Putrasahan, D. A., Roberts, C., Roberts, M., **Scoccimarro, E.**, Schiemann, R., Seddon, J., Senan, R., Valcke, S., Vanniere, B: Impact of higher spatial atmospheric resolution on precipitation extremes over land in global climate models. *Journal of Geophysical Research: Atmospheres*, doi: 10.1029/2019JD032184 (2020)

book chapters (8)

1. Gualdi S., **Scoccimarro E.** , Navarra A.: Changes in Tropical Cyclone Activity due to Global Warming in a General Circulation Model. “Hurricanes and Climate Change” Springer Book (2009)

2. Walsh, K., Lavender S., Murakami H., **Scoccimarro E.** , Caron L.P., Ghantous M.: The Tropical Cyclone Climate Model Intercomparison Project. “Hurricanes and Climate Change” ISBN: 9048195098 (2nd ed.), Springer Book (2010)

3. 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, Future Climate Projections chapter, in Regional Assessment of Climate Change in the Mediterranean, A. Navarra, L. Tubiana (eds.), Springer, Dordrecht, The Netherlands. (2011)
4. Arca B. , Pellizzaro G., Duce P., Salis M., Bacciu V., Spano D., Ager A., Finney M.A , **Scoccimarro** E.. Potential changes in fire probability and severity under climate change scenarios in Mediterranean areas. Modelling Fire Behaviour and Risk book ISBN 978-88-904409-7-7 (2012)
5. Sanna A. , **Scoccimarro** E. , Gualdi S., Bellucci A., Montesarchio M., Bucchignani E. Extreme events as represented by high resolution CMCC climate models at global and regional (Euro-Mediterranean) scale. Modelling Fire Behaviour and Risk book ISBN 978-88-904409-7-7 (2012)
6. **Scoccimarro** E., G. Villarini, S. Gualdi , A. Navarra , G. Vecchi, M. Zhao: Tropical Cyclone rainfall changes in a warmer climate. "Hurricanes and Climate Change Volume 3" chapter 10. Springer Book - ISBN 978-3-319-47592-9 (2016)
7. **Scoccimarro** E.: Modelling Tropical Cyclones in a changing climate. "Oxford Research Encyclopedia of Natural Hazard Science". Oxford University Press.
doi:10.1093/acrefore/9780199389407.013.22 (2016)
8. Mereu V., M. Santini, R. Cervigni, B. Augeard, F. Bosello, E. **Scoccimarro**, D. Spano, R. Valentini Robust Decision Making for a Climate-Resilient Development of the Agricultural Sector in Nigeria. In: Lipper L., McCarthy N., Zilberman D., Asfaw S., Branca G. (eds) Climate Smart Agriculture. Natural Resource Management and Policy, vol 52. Springer, Cham
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