

# Simona Masina

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## CURRICULUM VITAE

Simona Masina

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### Mailing and Office Address

Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)

Via Bertè Pichat, 6/2

I-40127 Bologna, Italy

### Education

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| 1996 | Ph.D., Princeton University                            |
| 1993 | M.A., Princeton University                             |
| 1989 | B.A. (Physics), University of Modena (magna cum laude) |

### Professional Experiences

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| 2008-present | Research Division Director - Ocean Modeling and Data Assimilation Division, CMCC |
| 2006-present | Senior Researcher, CMCC  |
| 2008-present | Senior Researcher, Istituto Nazionale di Geofisica e Vulcanologia                |
| 2000-2007    | Researcher, Istituto Nazionale di Geofisica e Vulcanologia                       |
| 1996-2000    | Researcher, Centro Nazionale delle Ricerche                                      |

### Teaching activities

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|--------------|---|
| 2007-present | Contract Professor, Ph.D Programme in Science and Management of Climate Change, Università Ca' Foscari (Venice)   |
| 2007-2008    | Contract Professor, Università degli Studi di Genova  |
| 1998-2002    | Contract Professor, Department of Environmental Sciences, Università di Bologna   |
| 1998-present | Advisor and Co-advisor of Bachelor and Ph.D theses in the Department of Environmental Sciences, Università di Bologna, and at Università Ca' Foscari (Venice) |

## **International Projects**

**2016-2019** Copernicus GLO-RAN. CMCC PI (€ 240.000,00).

**2016-2016** CMCC Strategic Projects (€ 140.000,00).

**2015-2020** H2020 “Crescendo”. CMCC PI (€ 556.635,00).

**2014-2015** EU “MyOcean Follow on”. CMCC PI and WP leader (€ 99.244,19).

**2014-2015** PRACE project “ENSEmble-based approach for global OCEAN forecasting (ENS4OCEAN)”, PRACE 8th regular call, Resource Awarded: 13,000,000 core hours on MareNostrum @ BSC, Spain.

**2012-2014** EU “MyOcean2” (*Prototype Operational Continuity for the GMES Ocean Monitoring and Forecasting Service*). CMCC PI and WP leader (€ 464.980,00).

**2011-2014** EU “GEOCARBON” (*Operational Global Carbon Observing System*). CMCC ANS Division PI (€ 95.000,00).

**2010-2015** National Project “GEMINA” (Miur/Mattm). (€ 1.629.000,00). ANS Division leader.

**2009-2013** EU “COMBINE” (*Comprehensive Modelling of the Earth System for Better Climate Prediction and Projection*) (€ 95.000,00).

**2009-2012** EU "My Ocean" (*Implementation project of the GMES Marine Core Service*). CMCC PI (€ 185.000,00).

**2007-2011** EU "CIRCE" (*Climate Change and Impact Research: the Mediterranean Environment*). WP Leader.

**2005-2008** EU "DYNAMITE" (*Understanding the Dynamics of the Coupled Climate System*). INGV PI (€ 223.520,00).

**2002-2004** EU-EESD "ENACT" (*ENhanced ocean data Assimilation and Climate predicTion*). INGV PI (€ 183.969,00).

**2001-2003** EU-EESD "PREDICATE" (*Mechanisms and PREdictability of Decadal Fluctuations In Atlantic-European ClimATE*). INGV PI (€ 180.000,00).

**1999-2001** EU-CEO "GANES" (*Global AssimilatioN applied to modelling of European Shelf seas*).

**1996-1999** EU-ENVIRONMENT AND CLIMATE "AGORA" (*Assesment of the Global Ocean ciRculation with data Assimilation systems for climate studies*).

## **Committee, consultant, and other positions**

On 28 August 2018 she has got the national scientific qualification as Full Professor for SC04/A4 (Geophysics).

Member of the Scientific Board of Mercator Ocean International (MOI) (June 2018 – present)

Member of the Scientific Organizing Committee of 5th International Conference on Reanalysis, 13-17 November 2017, Rome

Vice President of the the Italian Society for Climate Sciences (2015-2016)

Member of the Management Committee of the ESSEM COST Action Evaluation of Ocean Syntheses, ES1402 (November 2014-present)

Member of the Scientific Committee of the Science Symposium on Climate, FAO, Rome November 2015

Co-chair of the Scientific Committee of the Second Annual Conference of the Italian Society for Climate Sciences. Venice, 29-30 September 2014

Member of the CLIVAR Ocean Model Development Panel (OMDP) (September 2013-December 2018)

Member of the Scientific and Organizing Committees of the First Annual Conference of the Italian Society for Climate Sciences. Lecce, 23-24 September 2013

Executive Board Member of the Italian Society for Climate Sciences (SISC) (2013-2016)

Area Editor (Physical Oceanography and Climatology) of Annals of Geophysics (2013-2016)

Associate Editor of Annals of Geophysics (2011-2013)

Member of the Editorial Board of CLISP (Climate Science and Policy) edited by the Euro-Mediterranean Center on Climate Change (CMCC) (2009-present)

Member of Programme Committee of the Second *Convegno Nazionale di Oceanografia Operativa*. Cesenatico, 27-28 May 2010

Member of the Organizing Committee of the International Workshop "Atmospheric composition changes: climate-chemistry interactions". Lecce, 2-4 November 2009

Member of the Programme Committee of the International Conference OceanObs'09. Venezia, 21-25 September 2009

Member of the Programme Committee of the First *Convegno Nazionale di Oceanografia Operativa*. Genova, 8-10 June 2009

Member of the Faculty Board of the Ph.D. Programme on Science and Management of Climate Change, Cà Foscari University, Venice. (2006-present)

Member of the Editorial Board of the National Editorial Center of Istituto Nazionale di Geofisica e Vulcanologia (2006-2012)

INGV representative of the Italian Oceanographic Commission (COI) (2008-present)

Management Board substitute member for the FISR project "VECTOR" (*Vulnerabilità delle coste e degli ecosistemi marini italiani ai cambiamenti climatici e loro ruolo nei cicli del carbonio mediterraneo*) (2005-2010)

Executive Board member of the EU project "CIRCE" (*Climate Change and*

## **Publications (JCR peer-reviewed)**

### **2019**

1. Bonino, G., **Masina S.**, Iovino D. et al. Eastern Boundary Upwelling Systems response to different atmospheric forcing in a global eddy-permitting ocean model, *Journal of Marine Systems*, In press.
2. Cherchi, A., Fogli, P.G., Lovato, T., Peano, D., Iovino, D., Gualdi, S., **Masina, S.**, Scoccimarro, E., Materia, S., Bellucci, A., Navarra, A., 2019. Global Mean Climate and Main Patterns of Variability in the CMCC-CM2 Coupled Model. *Journal of Advances in Modeling Earth Systems* 11, 185–209. <https://doi.org/10.1029/2018MS001369>
3. Yang, C., Storto, A., & **Masina, S.**, 2019. Quantifying the effects of observational constraints and uncertainty in atmospheric forcing on historical ocean reanalyses. *Climate Dynamics*, Vol. 52, 5-6, 3321-3342. <https://doi.org/10.1007/s00382-018-4331-z>.
4. Morioka, Y., Doi T., Iovino D. et al., 2019. Role of sea-ice initialization in climate predictability over the Weddell Sea, *Scientific Reports*, Vol.: 9, Article Num: 2457.
5. Gasparin, F., Guinehut, S., Mao, et al., 2019. Requirements for an integrated in situ Atlantic Ocean Observing System from coordinated Observing System Simulation Experiments. *Frontiers in Marine Science*, 6, 83.
6. Le Traon P.Y, Repucci A., Alvarez Fanjul E., et al., 2019. From Observation to Information and Users: The Copernicus Marine Service Perspective. *Front. Mar. Sci.*, 6, 234. <https://doi.org/10.3389/fmars.2019.00234>
7. Fox-Kemper, B., Adcroft, A., Böning, et al., 2019. Challenges and Prospects in Ocean Circulation Models. *Frontiers in Marine Science*, 6, 65.
8. Palazov, A., Ciliberti, S., Peneva, et al., 2019. Black Sea Observing System. *Frontiers in Marine Science*, 6, 315.

### **2018**

9. Storto, A., **Masina, S.**, Simoncelli, et al., 2018. The added value of the multi-system spread information for ocean heat content and steric sea level investigations in the CMEMS GREP ensemble reanalysis product. *Climate Dynamics*, ( <https://doi.org/10.1007/s00382-018-4585-5>).
10. Scoccimarro, E., Bellucci, A., Storto, A., Gualdi, S., **Masina, S.**, and Navarra, A., 2018. Remote sub-surface ocean temperature as a predictor of Atlantic hurricane activity. *PNAS*, Volume: 115 Issue: 45 Pages: 11460-11464.

11. Morioka, Y., Doi, T., Storto, A., **Masina, S.**, & Behera, S. K., 2018. Role of subsurface ocean in decadal climate predictability over the South Atlantic. *Scientific reports*, 8(1), 8523.
12. Tsujino, H., Urakawa, S., Nakano, H., Small, R. J., Kim, W. M., Yeager, S. G., ... & Böning, C. W., 2018. JRA-55 based surface dataset for driving ocean–sea-ice models (JRA55-do). *Ocean Modelling*, 130, 79-139.
13. Storto, A., Martin, M. J., Deremble, B., & **Masina, S.**, 2018. Strongly coupled data assimilation experiments with linearized ocean–atmosphere balance relationships. *Monthly Weather Review*, 146(4), 1233-1257.
14. Buizza, R., Poli, P., Rixen, M., Alonso-Balmaseda, M., Bosilovich, M.G., Brönnimann, S., Compo, G.P., Dee, D.P., Desiato, F., Doutriaux-Boucher, M. and Fujiwara, M., 2018. Advancing Global & Regional Reanalyses. *Bulletin of the American Meteorological Society*, 99(8), ES139-ES144.
15. Von Schuckmann, K., P-Y. Le Traon, N. Smith et al., 2018. Copernicus Marine Service Ocean State Report, *Journal of Operational Oceanography*, Vol:11, Supp:1, Pages S1-S142.
16. Cherchi, A., Ratna, S., **Masina S.** et al. 2018. Evaluation of Amip-type atmospheric fields as forcing for the Mediterranean Sea and global ocean reanalyses. *Annals of Geophysics*, 61, 5, OC559.

## 2017

17. **Masina S.**, and Storto, A., 2017. Reconstructing the recent past ocean variability: status and perspective. *Journal of Marine Research*, 75, (6), pp. 727-764(38).
18. Mari, L, Bonaventura, L, Storto, A, Melia, P, Gatto, M, **Masina, S**, Casagrandi, R, 2017. Understanding large-scale, long-term larval connectivity patterns: The case of the Northern Line Islands in the Central Pacific Ocean. *Plos One*, 12 (8), e0182681.
19. Storto, A., Yang, C. and **Masina, S.**, 2017. Constraining the Global Ocean Heat Content Through Assimilation of CERES-Derived TOA Energy Imbalance Estimates. *GRL*, 44 (20): 10520-10529.
20. Cipollone, A., **Masina, S.**, Storto, A., & Iovino, D., 2017. Benchmarking the mesoscale variability in global ocean eddy-permitting numerical systems. *Ocean Dynamics*, 67 (10), pp:1313-1333.
21. Peano, D., Colleoni, F., Quiquet, A. and **Masina, S.**, 2017. Ice flux evolution in fast flowing areas of the Greenland ice sheet over the 20th and 21st centuries. *Journal of Glaciology*, 63 (239), pp.499-513.
22. Yang, C., **Masina, S.** and Storto, A., 2017. Historical ocean reanalyses (1900–2010) using different data assimilation strategies. *Quarterly Journal of the Royal Meteorological Society*, 143 (702), pp.479-493.

23. Storto, A. and **Masina, S.**, 2017. Objectively estimating the temporal evolution of accuracy and skill in a global ocean reanalysis. *Meteorological Applications*, 24 (1), pp.101-113.
24. Scoccimarro, E., Fogli, P.G., Reed, K.A., Gualdi, S., **Masina, S.** and Navarra, A., 2017. Tropical Cyclone Interaction with the Ocean: The Role of High-Frequency (Subdaily) Coupled Processes. *Journal of Climate*, 30(1), pp.145-162.
25. Chevallier, M., Smith, G. C., Dupont, F., Lemieux, J. F., Forget, G., Fujii, Y., ... & Toyoda, T., 2017. Intercomparison of the Arctic sea ice cover in global ocean–sea ice reanalyses from the ORA-IP project. *Climate Dynamics*, 49 (3), 1107-1136.
26. **Masina S.**, A. Storto, N. Ferry, M. Valdivieso, K. Haines, M. Balmaseda, H. Zuo, M. Drevillon, L. Parent, 2017. An ensemble of eddy-permitting global ocean reanalyses from the MyOcean project. *Climate Dynamics*, 49 (3), pp.813-841. DOI: 10.1007/s00382-015-2728-5.
27. Palmer M. et al., 2017. Ocean heat content variability and change in an ensemble of ocean reanalyses. *Climate Dynamics*, *Climate Dynamics*, 49 (3), pp.909-930.
28. Valdivieso, M., Haines, K., Balmaseda, M., Chang, Y. S., Drevillon, M., Ferry, N., ... & Wang, X., 2017. An assessment of air–sea heat fluxes from ocean and coupled reanalyses. *Climate Dynamics*, 49 (3), 983-1008.
29. Toyoda T., Y. Fujii, T. Kuragano, M. Kamachi, Y. Ishikawa, S. Masuda, K. Sato, T. Awaji, F. Hernandez, N. Ferry, S. Guinehut, M.J. Martin, K. A. Peterson, S.A. Good, M. Valdivieso, K. Haines, A. Storto, **S. Masina**, A. Köhl, H. Zuo, M. Balmaseda, Y. Yin, L. Shi, O. Alves, G. Smith, Y.-S. Chang, G. Vernieres, X. Wang, G. Forget, P. Heimbach, O. Wang, I. Fukumori, T. Lee, 2017. Interannual-decadal variability of wintertime mixed layer depths in the North Pacific detected by an ensemble of ocean syntheses, *Climate Dynamics*, 49 (3), 891-907. 10.1007/s00382-015-2762-3
30. Toyoda T., Y. Fujii, T. Kuragano, M. Kamachi, Y. Ishikawa, S. Masuda, K. Sato, T. Awaji, F. Hernandez, N. Ferry, S. Guinehut, M.J. Martin, K. A. Peterson, S.A. Good, M. Valdivieso, K. Haines, A. Storto, **S. Masina**, A. Köhl, H. Zuo, M. Balmaseda, Y. Yin, L. Shi, O. Alves, G. Smith, Y.-S. Chang, G. Vernieres, X. Wang, G. Forget, P. Heimbach, O. Wang, I. Fukumori, T. Lee, 2017. Intercomparison and validation of the mixed layer depth fields of global ocean syntheses. *Climate Dynamics*, 49 (3), 753-773, 10.1007/s00382-015-2637-7.
31. Storto A., **S. Masina**, M. Balmaseda, S. Guinehut, Y. Xue, T. Szekely, I. Fukumori, G. Forget, Y-S. Chang, S.A. Good, A. Kohl, G. Vernieres, N. Ferry, A. Peterson, D. Behringer, M. Ishii, S. Masuda, Y. Fujii, T. Toyoda, Y. Yin, M. Valdivieso, B. Barnier, T. Boyer, T. Lee, J. Gourrion, O. Wang, P. Heimbach, A. Rosati, R. Kovach, F. Hernandez, M.J. Martin, M. Kamachi, T. Kuragano, K. Mogensen, O. Alves, K. Haines, and X. Wang, 2017. Steric sea level variability (1993-2010) in an ensemble of ocean reanalyses and objective analyses. *Climate Dynamics*, 49 (3), 709-729, 10.1007/s00382-015-2554-9.
32. Haid, V., D. Iovino and **S. Masina**, 2017. Impacts of freshwater changes on

Antarctic sea ice in an eddy-permitting sea-ice-ocean model. *Criosphere*, 11 (3), 1387-1402.

## 2016

33. Storto, A. and **Masina, S.**, 2016. C-GLORSv5: an improved multipurpose global ocean eddy-permitting physical reanalysis. *Earth System Science Data*, 8(2), pp.679-696.
34. Jia, W., Wang, D., Pinardi, N., Simoncelli, S., Storto, A. and **Masina, S.**, 2016. A Quality Control Procedure for Climatological Studies Using Argo Data in the North Pacific Western Boundary Current Region. *Journal of Atmospheric and Oceanic Technology*, 33(12), pp.2717-2733.
35. Griffies, S. M., Danabasoglu, G., Durack, P. J., Adcroft, A. J., Balaji, V., Böning, C. W., Chassignet, E. P., Curchitser, E., Deshayes, J., Drange, H., Fox-Kemper, B., Gleckler, P. J., Gregory, J. M., Haak, H., Hallberg, R. W., Hewitt, H. T., Holland, D. M., Ilyina, T., Jungclaus, J. H., Komuro, Y., Krasting, J. P., Large, W. G., Marsland, S. J., **Masina, S.**, McDougall, T. J., Nurser, A. J. G., Orr, J. C., Pirani, A., Qiao, F., Stouffer, R. J., Taylor, K. E., Treguier, A. M., Tsujino, H., Uotila, P., Valdivieso, M., Winton, M., and Yeager, S. G. (2016). Experimental and diagnostic protocol for the physical component of the CMIP6 Ocean Model Intercomparison Project (OMIP). *Geosci. Model Dev.*, Volume: 9., Issue: 9, 3231-3296 - doi:10.5194/gmd-2016-77.
36. Iovino, D., **S. Masina**, A. Storto, A. Cipollone, and V.N. Stepanov, (2016). A 1/16° eddy simulation of the global NEMOv3.4 sea ice-ocean system. *Geosci. Model Dev.*, Volume: 9, Issue: 8, 2665-2684 - doi:10.5194/gmd-2015-268.
37. Storto, A., Yang, C., & **Masina, S.** (2016). Sensitivity of global ocean heat content from reanalyses to the atmospheric reanalysis forcing: A comparative study. *Geophysical Research Letters*, Volume: 43, Issue: 10, 5261-5270.
38. Yang, C., **Masina, S.**, Bellucci, A., & Storto, A. (2016). The rapid warming of the North Atlantic Ocean in the mid-1990s in an eddy permitting ocean reanalysis (1982-2013). *Journal of Climate*, Volume: 29, Issue: 15, 5417-5430.
39. Tseng Y., Lin H., Chen H., Thompson K., Bentsen M., Böning C.W., Bozec A., Cassou C., Chassignet E., Chow C. H., Danabasoglu G., Danilov S., Farneti R., Fogli P. G., Fujii Y., Griffies S. M., Ilicak M., Jung T., **Masina S.**, Navarra A., Patara L., Samuels B. L., Scheinert M., Sidorenko D., Sui C. H., Tsujino H., Valcke S., Voldoire A., Wang Q., Yeager S. G., (2016). North and equatorial Pacific Ocean circulation in the CORE-II hindcast simulations, *Ocean Modelling*, 104, 143-170, DOI: 10.1016/j.ocemod.2016.06.003.
40. Lecci, R., **Masina, S.**, Cherchi, A., & Barreiro, M. (2016). A coupled model study on the Atlantic Meridional Overturning Circulation under extreme atmospheric CO2 conditions. *Annals of Geophysics*, 59(2), P0215.
41. Epicoco, I., Mocavero, S., Macchia, F., Vichi, M., Lovato, T., **Masina, S.**, & Aloisio, G. (2016). Performance and results of the high-resolution biogeochemical model

42. Wekerle, C., F. Colleoni, J-O. Naslund, J. Brandefelt, and **S. Masina** (2016). Numerical reconstructions of the penultimate glacial maximum Northern Hemisphere ice sheets: sensitivity to climate forcing and model parameters. *Journal of Glaciology*: Volume: 62, Issue: 234, 607-622.
43. Cherchi, A., Annamalai H., **Masina S.**, Navarra A., Alessandri A., (2016). Twenty-first century projected summer mean climate in the Mediterranean interpreted through the monsoon-desert mechanism. *Climate Dynamics*, Volume: 47, Issue: 7-8, 2361-2371. DOI 10.1007/s00382-015-2968-4.
44. Danabasoglu, G., Yeager, W.M., Kim, D., Behrens, E., Bentsen, M., Bi, D., Biastoch, A., Bleck, R., Boning, C., Bozec, A., Canuto, V. M., Cassou, C., Chassignet, E., Coward, A. C., Danilov, S., Diansky, N., Drange, H., Farneti, R., Fernandez, E., Fogli, P. G., Forget, G., Fujii, Y., Griffies, S. M., Gusev, A., Heimbach, P., Howard, A., Ilicak, M., Jung, T., Karspeck, A.R., Kelley, M., Large, W. G., Leboissetier, A., Lu, J., Madec, G., Marsland, S. J., **Masina, S.**, Navarra, A., Nurser, A. G., Pirani, A., Romanou, A., y Mlia, D. S., Samuels, B. L., Scheinert, M., Sidorenko, D., Sun, S., Treguier, A.-M., Tsujino, H., Uotila, P., Valcke, S., Voldoire, A., Wang, Q., , Yashayaev, I., (2016). North Atlantic simulations in Coordinated Ocean-ice Reference Experiments Phase II (CORE-II). Part I: Inter-annual to decadal variability. *Ocean Modelling*, 97, 65-90.
45. Storto, A., **Masina, S.** and Navarra, A. (2016). Evaluation of the CMCC eddy-permitting global ocean physical reanalysis system (C-GLORS, 1982–2012) and its assimilation components. *Quarterly Journal of the Royal Meteorological Society*. Vol 142, Issue 695, Pages: 738–758.
46. Visinelli L, **Masina S**, Vichi M, Storto A, Lovato T (2016). Impacts of data assimilation on the global ocean carbonate system. *Journal of Marine Systems*;158:106-119.
47. Wang Q., Ilicak M., Gerdes R., Drange H., Aksenov Y., Bailey D.A., Bentsen M., Biastoch A., Bozec A., Böning C., Cassou C., Chassignet E., Coward A.C., Curry B., Danabasoglu G., Danilov S., Fernandez E., Fogli P. G. , Fujii Y., Griffies S.M., Iovino D., Jahn A., Jung T., Large W.G., Lee C., Lique C., Lu J., **Masina S.**, Nurser A.J.G., Rabe B., Roth C., Salas y Mélia D., Samuels B.L., Spence P., Tsujino H., Valcke S., Voldoire A., Wang X., Yeager S.G.(2016). An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part I: Sea ice and solid freshwater, *Ocean Modelling*, Volume 99, Pages 110–132, DOI: 10.1016/j.ocemod.2015.12.008.
48. Wang Q., Ilicak M., Gerdes R., Drange H., Aksenov Y., Bailey D.A., Bentsen M., Biastoch A., Bozec A., Böning C., Cassou C., Chassignet E., Coward A.C., Curry B., Danabasoglu G., Danilov S., Fernandez E., Fogli P. G. , Fujii Y., Griffies S.M., Iovino D., Jahn A., Jung T., Large W.G., Lee C., Lique C., Lu J., **Masina S.**, Nurser A.J.G., Rabe B., Roth C., Salas y Mélia D., Samuels B.L., Spence P., Tsujino H., Valcke S., Voldoire A., Wang X., Yeager S.G.(2016). An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part II: Liquid



49. Downes, S., R. Farneti, P. Uotila, S.M. Griffies, S. Marsland, D. Bailey, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Boning, 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, A. Navarra, A.J.G Nurser, L. Patara, B.L. Samuels, D. Sidorenko, P. Spence, H. Tsujino, Q. Wang, S.G. Yeager (2016). An assessment of Southern Ocean water masses and sea ice during 1988-2007 in a suite of inter-annual CORE-II simulations. *Ocean Modelling*, 94, 67-94.
50. Ilicak M., Drange H., Wang Q., Gerdes R., Aksenov Y., Bailey D., Bentsen M., Biastoch A., Bozec A., Böning C., Cassou C., Chassignet E., Coward A.C., Curry B., Danabasoglu G., Danilov S., Fernandez E., Fogli P. G. , Fujii Y., Griffies S.M., Iovino D., Jahn A., Jung T., Large W.G., Lee C., Lique C., Lu J., **Masina S.**, Nurser A.J.G., Roth C., Salas y Mélia D., Samuels B.L., Spence P., Tsujino H., Valcke S., Voldoire A., Wang X., Yeager S.G. (2016). An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part III: Hydrography and fluxes. *Ocean Modelling*, Volume 100, Pages 141–161, DOI: 10.1016/j.ocemod.2016.02.004
51. Colleoni, F., Wekerle, C., Näslund, J. O., Brandefelt, J., & **Masina, S.** (2016). Constraint on the penultimate glacial maximum Northern Hemisphere ice topography ( $\approx 140$  kyrs BP). *Quaternary Science Reviews*, 137, 97-112.
52. Stepanov V. N., Iovino D., **Masina S.**, Storto A., Cipollone A. (2016). Observed and simulated variability of the Atlantic Meridional Overturning Circulation at 41°N, *Journal of Marine Systems*, Volume 164, December 2016, Pages 42–52, DOI: <http://dx.doi.org/10.1016/j.jmarsys.2016.08.004>
53. Stepanov V. N., Iovino D., **Masina S.**, Storto A., Cipollone A. (2016). The impact of horizontal resolution of density field on the calculation of the Atlantic meridional overturning circulation at 34°S, *Journal of Geophysical Research: Oceans*, 121, 4323–4340, DOI: doi:10.1002/2015JC011505.
54. Stepanov, V. N., Iovino, D., **Masina, S.**, Storto, A., & Cipollone, A. (2016). Methods of calculation of the Atlantic meridional heat and volume transports from ocean models at 26.5° N. *Journal of Geophysical Research: Oceans*, Vol: 121, Issue: 2, Pages: 1459-1475
- a. 2015**
55. Ratna, S. B., Cherchi, A., Joseph, P. V., Behera, S. K., Abish, B., & **Masina, S.** (2015). Moisture variability over the Indo-Pacific region and its influence on the Indian summer monsoon rainfall. *Climate Dynamics*, Vol:46, Issue:3-4, 949-965.
56. Colleoni, F., Cherchi, A., **Masina, S.**, & Brierley, C. M. (2015). Impact of global SST gradients on the Mediterranean runoff changes across the Plio-Pleistocene transition. *Paleoceanography*, Vol 30, Issue 6, 751-767.

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