Laure Zanna, Publication List

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Publications : * = first-author is a student or postdoc supervised by LZ; underline = group member

The PDFs of published manuscripts are available at `https://laurezanna.github.io/publication/`.

Manuscripts Submitted

[37] Zanna, Brankart, Huber, Penduff, Williams. Uncertainty and Scale Interactions in Ocean Ensembles: From Seasonal Forecasts to Multi-Decadal Climate Predictions. *QJRMS, Minor Revisions*.

[36] Zanna, Khatiwala, Gregory, Ison, Heimbach: Global reconstruction of historical ocean heat storage and transport. *PNAS, Submitted Jun 9*.

[35]* Juricke, MacLeod, Palmer, Weisheimer, Zanna: Seasonal to annual ocean forecasting skill and the role of model and observational uncertainty. *QJRMS, Minor Revisions*.

[34]* Bronselaer, Zanna: Tracking Ocean Heat Uptake with Carbon. *Science Advances*.

[33]* OReilly, Zanna. The signature of oceanic processes on extratropical decadal SST anomalies. *In Review, GRL.*

Manuscripts Published/Accepted

2018

[33] Faggiani Dias, Subramanian, Zanna, Miller: Remote and Local Influences in Forecasting Pacific SST: a Linear Inverse Model and a Multimodel Ensemble Study. *Clim. Dyn., Accepted*.

[32]* David, Zanna, Marshall. Eddy-mixing entropy as a measure of turbulent disorder in barotropic ocean jets. *J. of Stat. Mech., Accepted*.

[31]* O'Reilly, Woollings, Zanna and Weisheimer. The impact of tropical precipitation on summertime Euro-Atlantic circulation via a circumglobal wave-train. *J. Climate, Accepted Jun 1*.

[30] Bachman, Anstey, Zanna, The relationship between a deformation-based eddy parameterization and the LANS-α turbulence model. *Oc. Modelling,* doi.org/10.1016/j.ocemod.2018.04.007.

[29]* Bronselaer, Zanna, Munday, Lowe: Southern Ocean carbon-wind stress feedback. *Clim. Dyn.*, doi:10.1007/s00382-017-4041-y.

2017

[28] van Sebille et al.: Lagrangian ocean analysis: fundamentals and practices. *Oc. Modell.*, doi:10.1016/j.ocemod.2017.11.008

[27]* Kjellsson, Zanna, 2017: Spectral Fluxes of Kinetic Energy in Global Ocean Models and the Impact of Horizontal Resolution. *Fluids*, 2(3), 45, doi: 10.3390/fluids2030045

[26] Zanna, Porta Mana, Anstey, David, Bolton, 2017: Scale-Aware Deterministic and Stochastic Parametrizations of Eddy-Mean Flow Interaction. *Oc. Modell.*, 111, 66-80, doi:10.1016/j.ocemod.2017.01.004

[25]* Juricke, Palmer, Zanna, 2017: Stochastic parametrizations of sub-grid scale ocean variability: Impacts on low frequency variability. *J. Climate*, doi:10.1175/JCLI-D-16-0539.1

[24]* Anstey, Zanna, 2017: Deformation-based parametrization of ocean mesoscale eddies. *Oc. Modell.*, 112, 99-111, doi:10.1016/j.ocemod.2017.02.004

[23]* David, Marshall, Zanna, 2017: The statistical nature of turbulent barotropic ocean jets. *Oc. Modell.*, 113, 34-49, doi:10.1016/j.ocemod.2017.03.008

[22]* O'Reilly, Woollings, Zanna, 2017: The dynamical and thermodynamical influences of the Atlantic Multidecadal Oscillation on continental climate. *J. Climate*, doi:10.1175/JCLI-D-16-0345.1 .

[21]* Huber, Zanna, 2017: Drivers of uncertainty in simulated ocean circulation and heat uptake. *GRL*, 44, 14021413, doi:10.1002/2016GL071587.

[20] Grooms, Zanna, 2017: Statistical Parameterization of Mesoscale Eddies. *Oc. Modelling*, 113, 30-33, doi:10.1016/j.ocemod.2017.03.007.

[19]* Huddart, Subramanian, Zanna, Palmer, 2017: Seasonal and Decadal forecasts of Atlantic SST using a Linear Inverse Model: *Clim. Dyn.*, DOI: 10.1007/s00382-016-3375-1.

2016

[18]* Bronselaer, Zanna, Munday, Lowe, 2016: The Influence of Southern Ocean Winds on the North Atlantic Carbon Sink. *Global Biogeochem. Cycles*, 30, 844-858.

[17]* O'Reilly, Huber, Woollings, Zanna, 2016: The signature of low frequency oceanic forcing in the Atlantic Multidecadal Oscillation, 2016. *GRL*, 43, 2810-2818. ***Research Spotlight: Eos, 97, doi:10.1029/2016EO050997***.

[16] MacMartin, Zanna, Tziperman, 2016: Suppression of AMOC variability at increased CO_2. *J. Climate*, 29, 11, 4155-4164, doi:10.1175/JCLI-D-15-0533.1.

[15]* Andrejczuk, Cooper, Juricke, Palmer, Weisheimer, Zanna, 2016: Oceanic stochastic parametrizations in a seasonal forecast system. *Mon. Wea. Rev.*, 144, 5, 1867-1875, doi:10.1175/MWR-D-15-0245.1.

2015

[14]* Cooper, Zanna, 2015: Optimisation of an idealised ocean model: stochastic parameterisation of sub-grid eddies. *Oc. Modell.*, 88 (0), 38-53.

2014

[13] Marshall, Zanna, 2014: A Conceptual Model of Ocean Heat Uptake under Climate Change. *J. Climate*, 27, 8444-8465.

[12]* Porta Mana, Zanna, 2014: Toward a Stochastic Parameterization of Ocean Mesoscale Eddies. *Oc. Modell.*, 79, 1-20.

2013

[11] Wilson, Horsburgh, Williams, Flowerdew, Zanna, 2013: Tide-Surge Adjoint Modelling: A New Technique to Understand Forecast Uncertainty. *JGR-Oceans*, 118 (10), 5092-5108.

[10] MacMartin, Tziperman, Zanna, 2013: Frequency-domain Multi-model Analysis of the Response of Atlantic Meridional Overturning Circulation to Surface Forcing. *J. Climate*, 26, 21, 8323-8340.

[9] Palmer, Zanna, 2013: Singular Vectors, Predictability and Ensemble Forecasting for Weather and Climate. **Invited Contrib.**. Special issue: Lyapunov analysis: from dynamical systems theory to applications, *J. Physics A*, 46, 254018.

2012

[8] Zanna, 2012: Forecast Skill & Predictability of Observed Atlantic Sea Surface Temperatures. *J. Climate*, 25, 14, 5047-5056.

[7] Zanna, 2012. Ocean Model Uncertainty in Climate Prediction. *ECMWF Proceedings, Workshop on Representing model uncertainty and error in numerical weather and climate prediction models*.

[6] Zanna, Heimbach, Moore, Tziperman, 2012: Upper Ocean Singular Vectors of the North Atlantic Ocean with Implications for Linear Predictability and Variability. *Q.J.R.M.S*, 138, 500-513.

2010-2011

[5] Zanna, Heimbach, Moore Tziperman, 2011: Optimal Excitation of Interannual Atlantic Meridional Overturning Circulation Variability. *J. Climate*, 24, 2, 413-427.

[4] Zanna, Heimbach, Moore, Tziperman, 2010: The Role of Ocean Dynamics in the Optimal Growth of Tropical SST Anomalies. *J. Phys. Ocean.*, 40, 5, 983-1003.

2005-2008

[3] Tziperman, Zanna, Penland, 2008: Non normal Thermohaline Circulation Dynamics in a Coupled Ocean-Atmosphere GCM. *J. Phys. Ocean.*, 38, 3, 588-604.

[2] Zanna, Tziperman, 2008: Optimal Surface Excitation of the Thermohaline Circulation. *J. Phys. Ocean.*, 38, 8, 1820-1830.

[1] Zanna, Tziperman, 2005: Non normal Amplification of the Thermohaline Circulation. *J. Phys. Ocean.*, 35, 9, 1593-1605.