

Yann Yvon PLANTON

NOAA Office of Oceanic and Atmospheric Research Pacific Marine Environmental Laboratory
7600 Sand Point Way NE, Seattle, WA 98115

Research interests

- ✓ Seasonal prediction of ENSO: influence of heat content, wind burst, asymmetries between El Niño and La Niña
- ✓ How to best evaluate ENSO in climate models? Key aspects, observations, simulation length, ...
- ✓ Evolution of ENSO with climate change

Research experiences

- ✓ 2019 to present **NRC research associate at NOAA – PMEL** (Pacific Marine Environmental Laboratory, part of the National Oceanic and Atmospheric Administration) – Seattle, USA
 - Conducting original research related to the ENSO prediction
 - Analysing CMIP3, CMIP5 and CMIP6 models
 - Developing the [ENSO metrics package](#) with the [CLIVAR Pacific Region Panel](#)
 - Publishing in peer-reviewed scientific journals and presenting results at conferences
- ✓ 2016 to 2019 **Postdoctoral research position at IPSL – LOCEAN** (oceanography and climate laboratory, part of the Institut Pierre Simon Laplace) – Paris, France
 - Conducted original research related to the ENSO
 - Analysed CMIP5 models
 - Ran the coupled model “CNRM-CM5” and developed sensitivity experiments
 - Contributed to the pilot technical implementation of an ENSO metrics package independent of the software infrastructure
 - Published in peer-reviewed scientific journals and presented results at conferences
 - Contributed to the Belmont forum project [GOTHAM](#)
- ✓ 2012 to 2015 **PhD student at CNRM** (research centre of Météo-France – French meteorological service) – Toulouse, France
 - Conducted research related to physical processes of the Atlantic cold tongue interannual variability
 - Ran the ocean model “NEMO” and evaluated its performance (intercomparaison with observations and reanalysis)
 - Developed new diagnostics in NEMO
 - Participated in the PIRATA annual oceanographic campaign (2014)
 - Published in peer-reviewed scientific journals and presented results at conferences
 - Contributed to the European project [PREFACE](#)
- ✓ 2012 (6 months) **research internship at COAPS** (center for ocean-atmospheric prediction studies) – Tallahassee, USA
 - Evaluated the performance of the ocean model “HYCOM”
 - Found the main sources of errors and proposed some ideas to correct them
 - Performed diagnostics requested by the CORE project collaborators
 - Contributed to the WCRP project [CORE – Phase II](#)

Education

- ✓ 2015 **Ph.D ocean, atmosphere and land surface**, Université Paul Sabatier, Toulouse, France
- ✓ 2012 **M.S. Environmental Fluid Mechanics**, Université Joseph Fourier, Grenoble, France
- ✓ 2010 **B.S. Mechanics and Engineering**, Université Joseph Fourier, Grenoble, France

Special skills

- ✓ Languages: French (mother tongue), fluent English, notions of German
- ✓ Programming skills: Fortran, IDL, MATLAB, python, Unix/Linux
- ✓ Scientific skills: large dataset analysis (CMIP3, CMIP5, CMIP6), statistical analysis, numerical modelling (experience with CNRM-CM5, HYCOM and NEMO models and with NetCDF file format), mixed-layer heat budget, ocean-atmosphere interactions

Major oceanic cruises

- ✓ PIRATA FR24 oceanographic campaign (April 2014) in the East Tropical Atlantic aboard the N/O Le Suroit. Work including XBT and CTD measurements, and ATLAS mooring maintenance

Communications

- ✓ Oral (2021): AMOS Annual Conference: science for impact, Melbourne (Australia), online
- ✓ Oral (2020): AGU Fall Meeting, San Francisco (USA), online
- ✓ Oral (2019): AGU Fall Meeting, San Francisco (USA)
- ✓ Poster (2019): AGU Fall Meeting, San Francisco (USA)
- ✓ Seminar (2019): Laboratoire de Météorologie Dynamique (LMD), Paris (France)
- ✓ Seminar (2019): Laboratoire d'Océanographie et du Climat – Expérimentations et Approches Numériques (LOCEAN), Paris (France)
- ✓ Oral (2019): CMIP6 Workshop, Bordeaux (France)
- ✓ Poster (2019): EGU general assembly, Vienna (Austria)
- ✓ Poster (2019): CMIP6 Model Analysis Workshop, Barcelona (Spain)
- ✓ Seminar (2019): Lawrence Livermore National Laboratory (LLNL), Livermore (USA)
- ✓ Poster (2018): IV International Conference on El Niño Southern Oscillation: ENSO in a warmer Climate, Guayaquil (Ecuador)
- ✓ Oral (2018): EGU general assembly, Vienna (Austria)
- ✓ Seminar (2018): Laboratoire d'Etudes en Géophysique et Océanographie Spatiales (LEGOS), Toulouse (France)
- ✓ Seminar (2018): Centre National de Recherches Météorologiques (CNRM), Toulouse (France)
- ✓ Oral (2017): ENSO Complexity Workshop, Busan (South Korea)
- ✓ Poster (2017): Global Teleconnections in the Earth's Climate System, Potsdam (Germany)
- ✓ Seminar (2016): Laboratoire d'Océanographie Physique et Spatiale (LOPS), Plouzané (France)
- ✓ Seminar (2016): Laboratoire d'Etudes en Géophysique et Océanographie Spatiales (LEGOS), Toulouse (France)
- ✓ Oral (2015): PIRATA-PREFACE-CLIVAR TAV conference, Cape Town (South Africa)
- ✓ Poster (2015): PIRATA-PREFACE-CLIVAR TAV conference, Cape Town (South Africa)
- ✓ Poster (2015): EGU general assembly, Vienna (Austria)
- ✓ Oral (2014): PREFACE general assembly, Casablanca (Morocco)
- ✓ Poster (2013): CLIVAR TAV and PIRATA Meeting, Venice (Italy)

Peer-reviewed publications

- ✓ Planton et al. (in prep.) The evolution of ENSO teleconnection in CMIP6 large ensembles.
- ✓ Planton et al. (in prep.) How well do we know ENSO?
- ✓ Xu et al. (in prep.) The Andes and ENSO Statistics Correction.
- ✓ Lee et al. (under review) On the robustness of the evaluation of ENSO in climate models: How many ensemble members are needed? *Journal of Climate*.
- ✓ Power et al. (under review) Decadal climate variability in the tropical Pacific: characteristics, causes, predictability and prospects. *Science*

- ✓ Planton et al. (2021) The Asymmetric Influence of Ocean Heat Content on ENSO Predictability in the CNRM-CM5 Coupled General Circulation Model. Journal of Climate. <https://doi.org/10.1175/JCLI-D-20-0633.1>
- ✓ Planton et al. (2021) Evaluating Climate Models with the CLIVAR 2020 ENSO Metrics Package. Bulletin of the American Meteorological Society. <https://doi.org/10.1175/BAMS-D-19-0337.1>
- ✓ Boucher et al. (2020) Presentation and Evaluation of the IPSL-CM6A-LR Climate Model. Journal of Advances in Modeling Earth Systems. <https://doi.org/10.1029/2019MS002010>
- ✓ Planton et al. (2018) Western Pacific oceanic heat content: a better predictor of La Niña than of El Niño. Geophysical Research Letters. <https://doi.org/10.1029/2018GL079341>
- ✓ Timmermann et al. (2018) El Niño–Southern Oscillation complexity. Nature. <https://doi.org/10.1038/s41586-018-0252-6>
- ✓ Takeshi et al. (2018) On the physical interpretation of the lead relation between Warm Water Volume and the El Niño Southern Oscillation. Climate Dynamics. <https://doi.org/10.1007/s00382-018-4313-1>
- ✓ Planton et al. (2018) Main processes of the Atlantic cold tongue interannual variability. Climate Dynamics. <https://doi.org/10.1007/s00382-017-3701-2>

References

- ✓ NOAA – PMEL, Seattle, Washington, USA

<p>Michael J. McPhaden Phone number: +1 206 526 6783 Email: michael.j.mcphaden@noaa.gov</p>	<p>Andrew T. Wittenberg Phone number: +1 609 987 5064 Email: andrew.wittenberg@noaa.gov</p>
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- ✓ IPSL – LOCEAN, Sorbonne Université-CNRS-IRD-MNHN, Paris, France

<p>Éric Guilyardi Phone number: +33 14 427 7076 Email: eric.guilyardi@locean.ipsl.fr</p> <p>Jérôme Vialard Phone number: +33 14 427 5012 Email: jerome.vialard@locean.ipsl.fr</p>	<p>Matthieu Lengaigne Phone number: +33 14 427 5012 Email: matthieu.lengaigne@locean.ipsl.fr</p>
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- ✓ CNRM-GAME, Météo-France/CNRS, Toulouse, France

<p>Aurore Voldoire Phone number: +33 56 107 9698 Email: aurore.voldoire@meteo.fr</p>	<p>Hervé Giordani Phone number: +33 56 107 9381 Email: herve.giordani@meteo.fr</p>
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- ✓ COAPS, Tallahassee, Florida, USA

<p>Alexandra Bozec Phone number: +1 850 645 1253 Email: abozec@coaps.fsu.edu</p>	
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Personal interests

- ✓ Backpacking, cooking, cycling, hiking, juggling, running, skiing, surfing, video editing