Eric Guilyardi

List of Publications by Year
in descending order

74 papers	12,377 citations	81900 39 h-index	69250 77 g-index
90 all docs	90 docs citations	90 times ranked	12047 citing authors

#	Article	IF	Citations
1	Increasing frequency of extreme El NiÃ±o events due to greenhouse warming. Nature Climate Change, 2014, 4, 111-116.	18.8	1,572
2	Climate change projections using the IPSL-CM5 Earth System Model: from CMIP3 to CMIP5. Climate Dynamics, 2013, 40, 2123-2165.	3.8	1,425
3	The impact of global warming on the tropical Pacific Ocean and El NiÃ±o. Nature Geoscience, 2010, 3, 391-397.	12.9	1,029
4	Understanding ENSO Diversity. Bulletin of the American Meteorological Society, 2015, 96, 921-938.	3.3	745
5	ENSO representation in climate models: from CMIP3 to CMIP5. Climate Dynamics, 2014, 42, 1999-2018.	3.8	712
6	El NiÃ±oâ€"Southern Oscillation complexity. Nature, 2018, 559, 535-545.	27.8	702
7	ENSO and greenhouse warming. Nature Climate Change, 2015, 5, 849-859.	18.8	596
8	Presentation and Evaluation of the IPSLâ€CM6Aâ€LR Climate Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002010.	3.8	541
9	Increased frequency of extreme LaÂNiÃ±a events under greenhouse warming. Nature Climate Change, 2015, 5, 132-137.	18.8	479
10	Understanding El NiÃ±o in Oceanâ€"Atmosphere General Circulation Models: Progress and Challenges. Bulletin of the American Meteorological Society, 2009, 90, 325-340.	3.3	455
11	El NiÃ±oâ€"mean stateâ€"seasonal cycle interactions in a multi-model ensemble. Climate Dynamics, 2006, 26, 329-348.	3.8	368
12	Triggering of El Niï¿½o by westerly wind events in a coupled general circulation model. Climate Dynamics, 2004, 23, 601-620.	3.8	220
13	A Model Study of Oceanic Mechanisms Affecting Equatorial Pacific Sea Surface Temperature during the 1997â€"98 El NiÃ±o. Journal of Physical Oceanography, 2001, 31, 1649-1675.	1.7	202
14	Using palaeo-climate comparisons to constrain future projections in CMIP5. Climate of the Past, 2014, 10, 221-250.	3.4	193
15	Two Independent Triggers for the Indian Ocean Dipole/Zonal Mode in a Coupled GCM. Journal of Climate, 2005, 18, 3428-3449.	3.2	165
16	Simulation of the Maddenâ€"Julian Oscillation in a Coupled General Circulation Model. Part II: The Role of the Basic State. Journal of Climate, 2003, 16, 365-382.	3.2	150
17	Response of El NiÃ±o sea surface temperature variability to greenhouse warming. Nature Climate Change, 2014, 4, 786-790.	18.8	147
18	The impact of westerly wind bursts and ocean initial state on the development, and diversity of El NiÃ±o events. Climate Dynamics, 2015, 44, 1381-1401.	3.8	147

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19	Tropical explosive volcanic eruptions can trigger El NiÃ±o by cooling tropical Africa. Nature Communications, 2017, 8, 778.	12.8	132
20	Late-twentieth-century emergence of the El NiÃ±o propagation asymmetry and future projections. Nature, 2013, 504, 126-130.	27.8	116
21	The Role of Atmosphere Feedbacks during ENSO in the CMIP3 Models. Part III: The Shortwave Flux Feedback. Journal of Climate, 2012, 25, 4275-4293.	3.2	112
22	Mechanisms for ENSO Phase Change in a Coupled GCM. Journal of Climate, 2003, 16, 1141-1158.	3.2	111
23	Atmosphere Feedbacks during ENSO in a Coupled GCM with a Modified Atmospheric Convection Scheme. Journal of Climate, 2009, 22, 5698-5718.	3.2	109
24	The role of atmosphere feedbacks during ENSO in the CMIP3 models. Atmospheric Science Letters, 2009, 10, 170-176.	1.9	104
25	Bidecadal North Atlantic ocean circulation variability controlled by timing of volcanic eruptions. Nature Communications, 2015, 6, 6545.	12.8	101
26	Evaluating Climate Models with the CLIVAR 2020 ENSO Metrics Package. Bulletin of the American Meteorological Society, 2021, 102, E193-E217.	3.3	93
27	Decadal climate variability in the tropical Pacific: Characteristics, causes, predictability, and prospects. Science, 2021, 374, eaay9165.	12.6	92
28	Modulation of equatorial Pacific westerly/easterly wind events by the Maddenâ€“Julian oscillation and convectively-coupled Rossby waves. Climate Dynamics, 2016, 46, 2155-2178.	3.8	89
29	Mid-Holocene and Last Glacial Maximum climate simulations with the IPSL modelâ€”part I: comparing IPSL_CM5A to IPSL_CM4. Climate Dynamics, 2013, 40, 2447-2468.	3.8	88
30	The impact of westerly wind bursts on the diversity and predictability of El NiÃ±o events: An ocean energetics perspective. Geophysical Research Letters, 2014, 41, 4654-4663.	4.0	79
31	Towards improved and more routine Earth system model evaluation in CMIP. Earth System Dynamics, 2016, 7, 813-830.	7.1	74
32	Initialisation and predictability of the AMOC over the last 50Âyears in a climate model. Climate Dynamics, 2013, 40, 2381-2399.	3.8	72
33	The March 1997 Westerly Wind Event and the Onset of the 1997/98 El NiÃ±o: Understanding the Role of the Atmospheric Response. Journal of Climate, 2003, 16, 3330-3343.	3.2	70
34	The role of atmosphere feedbacks during ENSO in the CMIP3 models. Part II: using AMIP runs to understand the heat flux feedback mechanisms. Climate Dynamics, 2011, 37, 1271-1292.	3.8	66
35	Using seasonal hindcasts to understand the origin of the equatorial cold tongue bias in CGCMs and its impact on ENSO. Climate Dynamics, 2013, 40, 963-981.	3.8	63
36	Requirements for a global data infrastructure in support of CMIP6. Geoscientific Model Development, 2018, 11, 3659-3680.	3.6	62

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37	Multiyear predictability of tropical marine productivity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11646-11651.	7.1	61
38	Mid-Holocene and last glacial maximum climate simulations with the IPSL model: part II: model-data comparisons. Climate Dynamics, 2013, 40, 2469-2495.	3.8	53
39	Decadal predictability of the Atlantic meridional overturning circulation and climate in the IPSL-CM5A-LR model. Climate Dynamics, 2013, 40, 2359-2380.	3.8	46
40	Reconciling two alternative mechanisms behind bi-decadal variability in the North Atlantic. Progress in Oceanography, 2015, 137, 237-249.	3.2	39
41	A systematic approach to identify the sources of tropical SST errors in coupled models using the adjustment of initialised experiments. Climate Dynamics, 2014, 43, 2261-2282.	3.8	38
42	Human-induced changes to the global ocean water masses and their time of emergence. Nature Climate Change, 2020, 10, 1030-1036.	18.8	37
43	New Strategies for Evaluating ENSO Processes in Climate Models. Bulletin of the American Meteorological Society, 2012, 93, 235-238.	3.3	35
44	Observation and integrated Earth-system science: A roadmap for 2016â€"2025. Advances in Space Research, 2016, 57, 2037-2103.	2.6	35
45	Influence of Westerly Wind Events stochasticity on El NiÃ±o amplitude: the case of 2014 vs. 2015. Climate Dynamics, 2019, 52, 7435-7454.	3.8	35
46	Western Pacific Oceanic Heat Content: A Better Predictor of La NiÃ±a Than of El NiÃ±o. Geophysical Research Letters, 2018, 45, 9824-9833.	4.0	34
47	PRISM and ENES: a European approach to Earth system modelling. Concurrency Computation Practice and Experience, 2006, 18, 247-262.	2.2	33
48	A new feedback on climate change from the hydrological cycle. Geophysical Research Letters, 2007, 34, .	4.0	32
49	Reconstructing the subsurface ocean decadal variability using surface nudging in a perfect model framework. Climate Dynamics, 2015, 44, 315-338.	3.8	30
50	Northward Pathway Across the Tropical North Pacific Ocean Revealed by Surface Salinity: How do El NiÃ±o Anomalies Reach Hawaii?. Journal of Geophysical Research: Oceans, 2018, 123, 2697-2715.	2.6	28
51	Documenting numerical experiments in support of the Coupled Model Intercomparison Project Phase 6 (CMIP6). Geoscientific Model Development, 2020, 13, 2149-2167.	3.6	26
52	The role of mean ocean salinity in climate. Dynamics of Atmospheres and Oceans, 2010, 49, 108-123.	1.8	25
53	Identifying causes of Western Pacific ITCZ drift in ECMWF System 4 hindcasts. Climate Dynamics, 2018, 50, 939-954.	3.8	22
54	Southern Ocean transformation in a coupled model with and without eddy mass fluxes. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 52, 554.	1.7	21

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55	How well do coupled models replicate ocean energetics relevant to ENSO?. Climate Dynamics, 2011, 36, 2147-2158.	3.8	21
56	Decadal prediction skill in the ocean with surface nudging in the IPSL-CM5A-LR climate model. Climate Dynamics, 2016, 47, 1225-1246.	3.8	21
57	Robust Evaluation of ENSO in Climate Models: How Many Ensemble Members Are Needed?. Geophysical Research Letters, 2021, 48, e2021GL095041.	4.0	21
58	Documenting Climate Models and Their Simulations. Bulletin of the American Meteorological Society, 2013, 94, 623-627.	3.3	20
59	Fourth CLIVAR Workshop on the Evaluation of ENSO Processes in Climate Models: ENSO in a Changing Climate. Bulletin of the American Meteorological Society, 2016, 97, 817-820.	3.3	20
60	Describing Earth system simulations with the Metafor CIM. Geoscientific Model Development, 2012, 5, 1493-1500.	3.6	15
61	Modulation of equatorial Pacific sea surface temperature response to westerly wind events by the oceanic background state. Climate Dynamics, 2019, 52, 7267-7291.	3.8	13
62	Processes driving intraseasonal displacements of the eastern edge of the warm pool: the contribution of westerly wind events. Climate Dynamics, 2015, 44, 735-755.	3.8	12
63	Development and exploitation of a controlled vocabulary in support of climate modelling. Geoscientific Model Development, 2014, 7, 479-493.	3.6	11
64	Southern Ocean transformation in a coupled model with and without eddy mass fluxes. Tellus, Series A: Dynamic Meteorology and Oceanography, 2000, 52, 554-565.	1.7	10
65	Effect of surface restoring on subsurface variability in a climate model during 1949â€“2005. Climate Dynamics, 2015, 44, 2333-2349.	3.8	9
66	Reconstructing extreme AMOC events through nudging of the ocean surface: a perfect model approach. Climate Dynamics, 2017, 49, 3425-3441.	3.8	9
67	Comment on â€œMultiyear Prediction of Monthly Mean Atlantic Meridional Overturning Circulation at 26.5Â°Nâ€• Science, 2012, 338, 604-604.	12.6	8
68	MEETING SUMMARIES. Bulletin of the American Meteorological Society, 2015, 96, 1969-1972.	3.3	8
69	Advances in reconstructing the AMOC using sea surface observations of salinity. Climate Dynamics, 2020, 55, 975-992.	3.8	7
70	PRISM AND ENES: AN EUROPEAN APPROACH TO EARTH SYSTEM MODELLING. , 2003, , .		6
71	Sensitivity of the Atlantic meridional overturning circulation and climate to tropical Indian Ocean warming. Climate Dynamics, 2021, 57, 2433-2451.	3.8	6
72	The asymmetric influence of ocean heat content on ENSO predictability in the CNRM-CM5 coupled general circulation model. Journal of Climate, 2021, , 1-57.	3.2	5

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73	Simulations couplÃ©es globales des changements climatiques associÃ©s Ã une augmentation de la teneur atmosphÃ©rique en CO2. Comptes Rendus De L'AcadÃ©mie Des Sciences Earth & Planetary Sciences SÃ©rie II, Sciences De La Terre Et Des PlanÃ¨tes =, 1998, 326, 677-684.	0.2	4
74	Tentative reconstruction of the 1998â€"2012 hiatus in global temperature warming using the IPSLâ€"CM5Aâ€"LR climate model. Comptes Rendus - Geoscience, 2017, 349, 369-379.	1.2	4