Frederic Hourdin

List of Publications by Year
in descending order

31	3,467	331538 21	434063 31
papers	citations	h-index	g-index

34	34	34	4440
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The LMDZ4 general circulation model: climate performance and sensitivity to parametrized physics with emphasis on tropical convection. Climate Dynamics, 2006, 27, 787-813.	1.7	795
2	Presentation and Evaluation of the IPSLâ€CM6Aâ€LR Climate Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002010.	1.3	541
3	The Art and Science of Climate Model Tuning. Bulletin of the American Meteorological Society, 2017, 98, 589-602.	1.7	343
4	LMDZ5B: the atmospheric component of the IPSL climate model with revisited parameterizations for clouds and convection. Climate Dynamics, 2013, 40, 2193-2222.	1.7	256
5	Impact of the LMDZ atmospheric grid configuration on the climate and sensitivity of the IPSL-CM5A coupled model. Climate Dynamics, 2013, 40, 2167-2192.	1.7	250
6	The Present and Future of the West African Monsoon: A Process-Oriented Assessment of CMIP5 Simulations along the AMMA Transect. Journal of Climate, 2013, 26, 6471-6505.	1.2	189
7	The Use of Finite-Volume Methods for Atmospheric Advection of Trace Species. Part I: Test of Various Formulations in a General Circulation Model. Monthly Weather Review, 1999, 127, 822-837.	0.5	185
8	A Thermal Plume Model for the Convective Boundary Layer: Representation of Cumulus Clouds. Journals of the Atmospheric Sciences, 2008, 65, 407-425.	0.6	101
9	Parameterization of the Dry Convective Boundary Layer Based on a Mass Flux Representation of Thermals. Journals of the Atmospheric Sciences, 2002, 59, 1105-1123.	0.6	98
10	LMDZ6A: The Atmospheric Component of the IPSL Climate Model With Improved and Better Tuned Physics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001892.	1.3	89
11	High resolution simulation of the South Asian monsoon using a variable resolution global climate model. Climate Dynamics, 2013, 41, 173-194.	1.7	80
12	Control of deep convection by sub-cloud lifting processes: the ALP closure in the LMDZ5B general circulation model. Climate Dynamics, 2013, 40, 2271-2292.	1.7	59
13	The stratospheric version of LMDz: dynamical climatologies, arctic oscillation, and impact on the surface climate. Climate Dynamics, 2005, 25, 851-868.	1.7	56
14	IPSL-CM5A2 â€“ an Earth system model designed for multi-millennial climate simulations. Geoscientific Model Development, 2020, 13, 3011-3053.	1.3	55
15	Ongoing Breakthroughs in Convective Parameterization. Current Climate Change Reports, 2019, 5, 95-111.	2.8	50
16	Air moisture control on ocean surface temperature, hidden key to the warm bias enigma. Geophysical Research Letters, 2015, 42, 10,885.	1.5	39
17	Improved Nearâ€Surface Continental Climate in IPSLâ€CM6Aâ€LR by Combined Evolutions of Atmospheric and Land Surface Physics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002005.	1.3	36
18	Modeling the Dynamics of the Atmospheric Boundary Layer Over the Antarctic Plateau With a General Circulation Model. Journal of Advances in Modeling Earth Systems, 2018, 10, 98-125.	1.3	34

#	Article	IF	Citations
19	Processâ€Based Climate Model Development Harnessing Machine Learning: I. A Calibration Tool for Parameterization Improvement. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002217.	1.3	32
20	Increased risk of near term global warming due to a recent AMOC weakening. Nature Communications, 2021, 12, 6108.	5.8	25
21	Antarctic boundary layer parametrization in a general circulation model: 1â€D simulations facing summer observations at Dome C. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6818-6843.	1.2	22
22	Improved Representation of Clouds in the Atmospheric Component LMDZ6A of the IPSLâ€CM6A Earth System Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002046.	1.3	20
23	Unified Parameterization of Convective Boundary Layer Transport and Clouds With the Thermal Plume Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 2910-2933.	1.3	19
24	Processâ€Based Climate Model Development Harnessing Machine Learning: II. Model Calibration From Single Column to Global. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002225.	1.3	18
25	Presentation and Evaluation of the IPSLâ€CM6Aâ€LR Ensemble of Extended Historical Simulations. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002565.	1.3	18
26	Convective Boundary Layer Control of the Sea Surface Temperature in the Tropics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001988.	1.3	15
27	Omens of coupled model biases in the CMIP5 AMIP simulations. Climate Dynamics, 2018, 51, 2927-2941.	1.7	13
28	The Tuning Strategy of IPSLâ€CM6Aâ€LR. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002340.	1.3	10
29	Processâ€Based Climate Model Development Harnessing Machine Learning: III. The Representation of Cumulus Geometry and Their 3D Radiative Effects. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002423.	1.3	8
30	Alleviation of an Arctic Sea Ice Bias in a Coupled Model Through Modifications in the Subgridâ€Scale Orographic Parameterization. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002111.	1.3	5
31	Competition Between Atmospheric and Surface Parameterizations for the Control of Airâ€Sea Latent Heat Fluxes in Two Singleâ€Column Models. Geophysical Research Letters, 2019, 46, 7780-7789.	1.5	2