Jean-Luc Redelsperger

List of Publications by Year
in descending order

101 papers	6,846 citations	70961 41 h-index	62479 80 g-index
111 all docs	111 docs citations	111 times ranked	4715 citing authors

#	Article	IF	Citations
1	The Meso-NH Atmospheric Simulation System. Part I: adiabatic formulation and control simulations. Annales Geophysicae, 1998, 16, 90-109.	0.6	673
2	A turbulence scheme allowing for mesoscale and largeâ€eddy simulations. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 1-30.	1.0	622
3	African Monsoon Multidisciplinary Analysis: An International Research Project and Field Campaign. Bulletin of the American Meteorological Society, 2006, 87, 1739-1746.	1.7	620
4	Sensitivity of moist convection to environmental humidity. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 3055-3079.	1.0	383
5	The simulation of the diurnal cycle of convective precipitation over land in a global model. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 3119-3137.	1.0	242
6	Modelling the diurnal cycle of deep precipitating convection over land with cloud-resolving models and single-column models. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 3139-3172.	1.0	212
7	Overview of the Meso-NH model version 5.4 and its applications. Geoscientific Model Development, 2018, 11, 1929-1969.	1.3	194
8	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
9	Large-scale overview of the summer monsoon over West Africa during the AMMA field experiment in 2006. Annales Geophysicae, 2008, 26, 2569-2595.	0.6	181
10	A Numerical Study of the Stratiform Region of a Fast-Moving Squall Line. Part I: General Description and Water and Heat Budgets. Journals of the Atmospheric Sciences, 1994, 51, 2046-2074.	0.6	154
11	The AMMA field campaigns: multiscale and multidisciplinary observations in the West African region. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 8-33.	1.0	136
12	Recovery Processes and Factors Limiting Cloud-Top Height following the Arrival of a Dry Intrusion Observed during TOGA COARE. Journals of the Atmospheric Sciences, 2002, 59, 2438-2457.	0.6	129
13	The Structure of the Near-Neutral Atmospheric Surface Layer. Journals of the Atmospheric Sciences, 2004, 61, 699-714.	0.6	120
14	Coupled Ocean-Atmosphere Response Experiment (COARE): An interim report. Journal of Geophysical Research, 1998, 103, 14395-14450.	3.3	109
15	Multi-scale description of a Sahelian synoptic weather system representative of the West African monsoon. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1229-1257.	1.0	108
16	The evolution of the tropical western Pacific atmosphere-ocean system following the arrival of a dry intrusion. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 517-548.	1.0	105
17	Coupling between the Atlantic cold tongue and the West African monsoon in boreal spring and summer. Journal of Geophysical Research, 2011, 116, .	3.3	102
18	An Approach for Convective Parameterization with Memory: Separating Microphysics and Transport in Grid-Scale Equations. Journals of the Atmospheric Sciences, 2007, 64, 4127-4139.	0.6	98

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19	GEWEX Cloud System Study (GCSS) Working Group 4: Precipitating Convective Cloud Systems. Bulletin of the American Meteorological Society, 1997, 78, 831-845.	1.7	97
20	A gcss model intercomparison for a tropical squall line observed during togaâ€coare. I: Cloudâ€resolving models. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 823-863.	1.0	91
21	Extratropical Dry-Air Intrusions into the West African Monsoon Midtroposphere: An Important Factor for the Convective Activity over the Sahel. Journals of the Atmospheric Sciences, 2005, 62, 390-407.	0.6	90
22	The Amma Radiosonde Program and its Implications for the Future of Atmospheric Monitoring Over Africa. Bulletin of the American Meteorological Society, 2008, 89, 1015-1028.	1.7	87
23	AMMA-Model Intercomparison Project. Bulletin of the American Meteorological Society, 2010, 91, 95-104.	1.7	84
24	A Parameterization of Mesoscale Enhancement of Surface Fluxes for Large-Scale Models. Journal of Climate, 2000, 13, 402-421.	1.2	82
25	The role of stability and moisture in the diurnal cycle of convection over land. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 3105-3117.	1.0	79
26	Three-Dimensional Simulation of a Convective Storm: Sensitivity Studies on Subgrid Parameterization and Spatial Resolution. Journals of the Atmospheric Sciences, 1986, 43, 2619-2635.	0.6	70
27	Modification of Surface Fluxes by Atmospheric Convection in the TOGA COARE Region. Monthly Weather Review, 1996, 124, 816-837.	0.5	70
28	A Three-Dimensional Simulation of a Tropical Squall Line: Convective Organization and Thermodynamic Vertical Transport. Journals of the Atmospheric Sciences, 1988, 45, 1334-1356.	0.6	68
29	An Idealized Two-Dimensional Framework to Study the West African Monsoon. Part I: Validation and Key Controlling Factors. Journals of the Atmospheric Sciences, 2007, 64, 2765-2782.	0.6	66
30	Numerical study of a Sahelian synoptic weather system: Initiation and mature stages of convection and its interactions with the large-scale dynamics. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1899-1927.	1.0	64
31	Water-vapour variability within a convective boundary-layer assessed by large-eddy simulations and IHOP_2002 observations. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2665-2693.	1.0	64
32	Numerical and Experimental Investigation of the Neutral Atmospheric Surface Layer. Journals of the Atmospheric Sciences, 2007, 64, 137-156.	0.6	62
33	Radiosonde humidity bias correction over the West African region for the special AMMA reanalysis at ECMWF. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 595-617.	1.0	61
34	Methode de representation de la turbulence d'echelle inferieure a la maille pour un modele tri-dimensionnel de convection nuageuse. Boundary-Layer Meteorology, 1981, 21, 509-530.	1.2	56
35	A GCSS model intercomparison for a tropical squall line observed during togaâ€coare. II: Intercomparison of singleâ€column models and a cloudâ€resolving model. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 865-888.	1.0	55
36	A Simple And General Subgrid Model Suitable Both For Surface Layer And Free-Stream Turbulence. Boundary-Layer Meteorology, 2001, 101, 375-408.	1.2	51

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37	SURFEX v8.0 interface with OASIS3-MCT to couple atmosphere with hydrology, ocean, waves and sea-ice models, from coastal to global scales. Geoscientific Model Development, 2017, 10, 4207-4227.	1.3	50
38	Comparison between a Three-Dimensional Simulation and Doppler Radar Data of a Tropical Squall Line: Transports of Mass, Momentum, Heat, and Moisture. Journals of the Atmospheric Sciences, 1988, 45, 3483-3500.	0.6	48
39	Global 4DVAR Assimilation and Forecast Experiments Using AMSU Observations over Land. Part II: Impacts of Assimilating Surface-Sensitive Channels on the African Monsoon during AMMA. Weather and Forecasting, 2010, 25, 20-36.	0.5	47
40	Synoptic variability of the monsoon flux over West Africa prior to the onset. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 159-173.	1.0	45
41	Equatorial Atmospheric Waves and Their Association to Convection. Monthly Weather Review, 1997, 125, 1167-1184.	0.5	44
42	Initialization of a fine-scale model for convective-system prediction: A case study. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 3041-3065.	1.0	42
43	Correction of Humidity Bias for Vaisala RS80-A Sondes during the AMMA 2006 Observing Period. Journal of Atmospheric and Oceanic Technology, 2008, 25, 2152-2158.	0.5	42
44	West African Monsoon water cycle: 2. Assessment of numerical weather prediction water budgets. Journal of Geophysical Research, 2010, 115, .	3.3	41
45	Negative water vapour skewness and dry tongues in the convective boundary layer: observations and large-eddy simulation budget analysis. Boundary-Layer Meteorology, 2007, 123, 269-294.	1.2	40
46	Role of Gravity Waves in Triggering Deep Convection during TOGA COARE. Journals of the Atmospheric Sciences, 2002, 59, 1293-1316.	0.6	37
47	African Easterly Waves and Convection. Part I: Linear Simulations. Journals of the Atmospheric Sciences, 1995, 52, 1657-1679.	0.6	32
48	Estimations of Mass Fluxes for Cumulus Parameterizations from High-Resolution Spatial Data. Journals of the Atmospheric Sciences, 2004, 61, 829-842.	0.6	31
49	Mode decomposition as a methodology for developing convective-scale representations in global models. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2313-2336.	1.0	31
50	Mechanisms for the Mesoscale Organization of Tropical Cloud Clusters in GATE Phase III. Part I. Shallow Cloud Bands. Journals of the Atmospheric Sciences, 1993, 50, 3571-3589.	0.6	29
51	Dynamic Role of a Westerly Wind Burst in Triggering an Equatorial Pacific Warm Event. Journal of Climate, 2003, 16, 1869-1890.	1.2	26
52	Strong winds in a coupled waveâ€"atmosphere model during a North Atlantic storm event: evaluation against observations. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 317-332.	1.0	26
53	An Intercomparison of Simulated Rainfall and Evapotranspiration Associated with a Mesoscale Convective System over West Africa. Weather and Forecasting, 2010, 25, 37-60.	0.5	23
54	THORPEX Research and the Science of Prediction. Bulletin of the American Meteorological Society, 2017, 98, 807-830.	1.7	23

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55	A turbulence scheme allowing for mesoscale and large-eddy simulations. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 1-30.	1.0	23
56	The Initiation and Horizontal Scale Selection of Convection over Gently Sloping Terrain. Journals of the Atmospheric Sciences, 1990, 47, 516-541.	0.6	22
57	A Numerical Study of the Stratiform Region of a Fast-Moving Squall Line. Part II: Relationship between Mass, Pressure, and Momentum Fields. Journals of the Atmospheric Sciences, 1995, 52, 331-352.	0.6	22
58	West African Monsoon water cycle: 1. A hybrid water budget data set. Journal of Geophysical Research, 2010, 115, .	3.3	22
59	Cloud-resolving simulation of convective activity during TOGA-COARE: Sensitivity to external sources of uncertainties. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 3067-3095.	1.0	20
60	Driftsondes: Providing In Situ Long-Duration Dropsonde Observations over Remote Regions. Bulletin of the American Meteorological Society, 2013, 94, 1661-1674.	1.7	20
61	Nonhydrostatic Simulation of Frontogenesis in a Moist Atmosphere. Part I: General Description and Narrow Rainbands. Journals of the Atmospheric Sciences, 1992, 49, 2200-2217.	0.6	19
62	A gcss model intercomparison for a tropical squall line observed during toga-coare. I: Cloud-resolving models. , 2000, 126, 823.		19
63	Thermodynamical impact and internal structure of a tropical convective cloud system. Quarterly Journal of the Royal Meteorological Society, 1997, 123, 2297-2324.	1.0	18
64	A study of a fair weather boundary layer in TOGA-COARE: Parameterization of surface fluxes in large scale and regional models for light wind conditions. Boundary-Layer Meteorology, 1998, 88, 47-76.	1.2	16
65	The largeâ€scale water cycle of the West African monsoon. Atmospheric Science Letters, 2011, 12, 51-57.	0.8	16
66	Processes leading to deep convection and sensitivity to seaâ€state representation during HyMeX IOP8 heavy precipitation event. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 2600-2615.	1.0	16
67	Nonhydrostatic Simulation of Frontogenesis in a Moist Atmosphere. Part II: Moist Potential Vorticity Budget and Wide Rainbands. Journals of the Atmospheric Sciences, 1992, 49, 2218-2235.	0.6	15
68	The AMMA field campaigns: accomplishments and lessons learned. Atmospheric Science Letters, 2011, 12, 123-128.	0.8	15
69	Methode de representation de la turbulence associee aux precipitations dans un modele tri-dimensionnel de convection nuageuse. Boundary-Layer Meteorology, 1982, 24, 231-252.	1.2	14
70	Non-hydrostatic simulations of a cold front observed during the Fronts 87 experiment. Quarterly Journal of the Royal Meteorological Society, 1994, 120, 519-555.	1.0	14
71	AMMA's contribution to the evolution of prediction and decisionâ€making systems for West Africa. Atmospheric Science Letters, 2011, 12, 2-6.	0.8	14
72	The behaviour of a cloud ensemble in response to external forcings. Quarterly Journal of the Royal Meteorological Society, 1996, 122, 1043-1073.	1.0	13

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73	Mesoscale water cycle within the West African Monsoon. Atmospheric Science Letters, 2011, 12, 45-50.	0.8	13
74	Development of a two-way-coupled oceanâ€“wave model: assessment on aÂglobal NEMO(v3.6)â€“WW3(v6.02) coupled configuration. Geoscientific Model Development, 2020, 13, 3067-3090.	1.3	13
75	Nonhydrostatic Simulation of Frontogenesis in a Moist Atmosphere. Part III: Thermal Wind Imbalance and Rainbands. Journals of the Atmospheric Sciences, 1994, 51, 3467-3485.	0.6	11
76	A Tropical Squall Line Observed during TOGA COARE: Extended Comparisons between Simulations and Doppler Radar Data and the Role of Midlevel Wind Shear. Monthly Weather Review, 2000, 128, 3709-3730.	0.5	10
77	AMMA information system: an efficient crossâ€disciplinary tool and a legacy for forthcoming projects. Atmospheric Science Letters, 2011, 12, 149-154.	0.8	10
78	Impact of a sharp, smallâ€scale SST front on the marine atmospheric boundary layer on the Iroise Sea: Analysis from a hectometric simulation. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 3692-3714.	1.0	10
79	Wavelet-Compressed Representation of Deep Moist Convection. Monthly Weather Review, 2004, 132, 1472-1486.	0.5	9
80	On the Impact of Long Wind-Waves on Near-Surface Turbulence and Momentum Fluxes. Boundary-Layer Meteorology, 2020, 174, 465-491.	1.2	8
81	The Mesoscale Organization of Deep Convection. , 1997, , 59-98.		8
82	Sub-gridscale effects in mesoscale deep convection: Initiation, organization and turbulence. Atmospheric Research, 1996, 40, 339-381.	1.8	7
83	Evaluation of a planetary boundary layer subgrid-scale model that accounts for near-surface turbulence anisotropy. Geophysical Research Letters, 2006, 33, .	1.5	7
84	An inverse method to derive surface fluxes from the closure of oceanic heat and water budgets: Application to the northâ€western Mediterranean Sea. Journal of Geophysical Research: Oceans, 2017, 122, 2884-2908.	1.0	7
85	Scalewise Return to Isotropy in Stratified Boundary Layer Flows. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032732.	1.2	7
86	â€œRenormalizationâ€•Approach for Subgrid-Scale Representations. Journals of the Atmospheric Sciences, 2003, 60, 2029-2038.	0.6	6
87	An analytical study of the atmospheric boundaryâ€layer flow and divergence over an SST front. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 2549-2567.	1.0	6
88	Parallelization of the French Meteorological Mesoscale Model MÃ©soNH. Lecture Notes in Computer Science, 1999, , 1417-1422.	1.0	6
89	A simplified atmospheric boundary layer model for an improved representation of airâ€“sea interactions in eddying oceanic models: implementation and first evaluation in NEMO (4.0). Geoscientific Model Development, 2021, 14, 543-572.	1.3	5
90	A caseâ€study of the coupled oceanâ€“atmosphere response to an oceanic diurnal warm layer. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 2008-2032.	1.0	5

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91	Driftsonde Observations to Evaluate Numerical Weather Prediction of the Late 2006 African Monsoon. Journal of Applied Meteorology and Climatology, 2013, 52, 974-995.	0.6	4
92	Impacts of surface gravity waves on a tidal front: A coupled model perspective. Ocean Modelling, 2020, 154, 101677.	1.0	3
93	A GCSS model intercomparison for a tropical squall line observed during toga-coare. II: Intercomparison of single-column models and a cloud-resolving model. , 2000, 126, 865.		3
94	Tropical ocean response to atmospheric forcing at kilometer scales with light precipitation. Journal of Geophysical Research, 2001, 106, 11399-11410.	3.3	2
95	Twoâ€sided turbulent surfaceâ€layer parameterizations for computing airâ€“sea fluxes. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 1726-1751.	1.0	2
96	The evolution of the tropical western Pacific atmosphere-ocean system following the arrival of a dry intrusion. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 517-548.	1.0	2
97	Initialization of a fine-scale model for convective-system prediction: A case study. Quarterly Journal of the Royal Meteorological Society, 2000, 126, 3041-3065.	1.0	2
98	Hurricane and Monsoon Tracking with Driftsondes. , 2013, , 1-14.		1
99	Le projet AMMA, un exemple dâ€™Ã©tude intÃ©grÃ© et multidisciplinaire sur un systÃ¨me climatique rÃ©gional. Houille Blanche, 2008, 94, 38-44.	0.3	1
100	Hurricane and Monsoon Tracking with Driftsondes. , 2013, , 181-197.		0
101	Turbulence Parameterization in a Deep Convection Model. , 1982, , 395-409.		0