Sandrine Bony

List of Publications by Year
in descending order

146 papers	23,738 citations	18436 62 h-index	13338 130 g-index
169 all docs	169 docs citations	169 times ranked	15426 citing authors

#	Article	IF	Citations
1	EUREC⁴A observations from the SAFIRE ATR42 aircraft. Earth System Science Data, 2022, 14, 2021-2064.	3.7	9
2	Ship- and island-based atmospheric soundings from the 2020 EUREC⁴A field campaign. Earth System Science Data, 2021, 13, 491-514.	3.7	26
3	Representation by two climate models of the dynamical and diabatic processes involved in the development of an explosively deepening cyclone during NAWDEX. Weather and Climate Dynamics, 2021, 2, 233-253.	1.2	5
4	How Rossby wave breaking modulates the water cycle in the North Atlantic trade wind region. Weather and Climate Dynamics, 2021, 2, 281-309.	1.2	17
5	Integrated water vapour content retrievals from ship-borne GNSS receivers during EUREC⁴A. Earth System Science Data, 2021, 13, 1499-1517.	3.7	18
6	Integrated water vapour observations in the Caribbean arc from a network of ground-based GNSS receivers during EUREC⁴A. Earth System Science Data, 2021, 13, 2407-2436.	3.7	15
7	The EUREC⁴A turbulence dataset derived from the SAFIRE ATR 42 aircraft. Earth System Science Data, 2021, 13, 3379-3398.	3.7	6
8	EUREC⁴A. Earth System Science Data, 2021, 13, 4067-4119.	3.7	88
9	JOANNE: Joint dropsonde Observations of the Atmosphere in tropical North atlaNtic meso-scale Environments. Earth System Science Data, 2021, 13, 5253-5272.	3.7	27
10	EUREC⁴A's <i>HALO</i>. Earth System Science Data, 2021, 13, 5545-5563.	3.7	24
11	Sugar, gravel, fish and flowers: Mesoscale cloud patterns in the trade winds. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 141-152.	1.0	78
12	The Relationship Between Convective Clustering and Mean Tropical Climate in Aquaplanet Simulations. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002070.	1.3	3
13	Weaker Links Between Zonal Convective Clustering and ITCZ Width in Climate Models Than in Observations. Geophysical Research Letters, 2020, 47, e2020GL090479.	1.5	2
14	Cloudy Perspectives. , 2020, , 1-32.		0
15	Clouds as Fluids. , 2020, , 35-73.		2
16	Clouds as Particles. , 2020, , 74-98.		0
17	Clouds as Light. , 2020, , 99-122.		0
18	Conceptualising Clouds. , 2020, , 125-169.		0

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19	Parameterising Clouds. , 2020, , 170-217.		1
20	Evaluating Clouds. , 2020, , 218-248.		0
21	Tropical and Subtropical Cloud Systems. , 2020, , 251-278.		0
22	Midlatitude Cloud Systems. , 2020, , 279-296.		0
23	Arctic Cloud Systems. , 2020, , 297-310.		0
24	Clouds and Aerosols. , 2020, , 313-328.		24
25	Clouds and Land. , 2020, , 329-355.		0
26	Clouds andWarming. , 2020, , 356-388.		1
27	Observed Modulation of the Tropical Radiation Budget by Deep Convective Organization and Lowerâ€Tropospheric Stability. AGU Advances, 2020, 1, e2019AV000155.	2.3	31
28	Clouds and Convective Selfâ€Aggregation in a Multimodel Ensemble of Radiativeâ€Convective Equilibrium Simulations. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002138.	1.3	86
29	Presentation and Evaluation of the IPSLâ€CM6Aâ€LR Climate Model. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002010.	1.3	541
30	Observational Evidence for a Stability Iris Effect in the Tropics. Geophysical Research Letters, 2020, 47, e2020GL089059.	1.5	21
31	Sugar, Gravel, Fish, and Flowers: Dependence of Mesoscale Patterns of Tradeâ€Wind Clouds on Environmental Conditions. Geophysical Research Letters, 2020, 47, e2019GL085988.	1.5	51
32	Relationship Between Precipitation Extremes and Convective Organization Inferred From Satellite Observations. Geophysical Research Letters, 2020, 47, e2019GL086927.	1.5	20
33	Combining Crowdsourcing and Deep Learning to Explore the Mesoscale Organization of Shallow Convection. Bulletin of the American Meteorological Society, 2020, 101, E1980-E1995.	1.7	36
34	Estimating the Shallow Convective Mass Flux from the Subcloud-Layer Mass Budget. Journals of the Atmospheric Sciences, 2020, 77, 1559-1574.	0.6	15
35	Trade-wind clouds and aerosols characterized by airborne horizontal lidar measurements during the EUREC⁴A field campaign. Earth System Science Data, 2020, 12, 2919-2936.	3.7	13
36	Stronger zonal convective clustering associated with a wider tropical rain belt. Nature Communications, 2019, 10, 4261.	5.8	10

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37	A High-Altitude Long-Range Aircraft Configured as a Cloud Observatory: The NARVAL Expeditions. Bulletin of the American Meteorological Society, 2019, 100, 1061-1077.	1.7	47
38	Identifying the Sources of Convective Memory in Cloud-Resolving Simulations. Journals of the Atmospheric Sciences, 2019, 76, 947-962.	0.6	27
39	A New Look at the Daily Cycle of Trade Wind Cumuli. Journal of Advances in Modeling Earth Systems, 2019, 11, 3148-3166.	1.3	48
40	Measuring Area-Averaged Vertical Motions with Dropsondes. Journals of the Atmospheric Sciences, 2019, 76, 767-783.	0.6	50
41	Thermodynamic Control on the Poleward Shift of the Extratropical Jet in Climate Change Simulations: The Role of Rising High Clouds and Their Radiative Effects. Journal of Climate, 2019, 32, 917-934.	1.2	27
42	Radiative Invigoration of Tropical Convection by Preceding Cirrus Clouds. Journals of the Atmospheric Sciences, 2018, 75, 1327-1342.	0.6	10
43	On the Interplay Between Convective Aggregation, Surface Temperature Gradients, and Climate Sensitivity. Journal of Advances in Modeling Earth Systems, 2018, 10, 3123-3138.	1.3	25
44	The Signature of Shallow Circulations, Not Cloud Radiative Effects, in the Spatial Distribution of Tropical Precipitation. Journal of Climate, 2018, 31, 9489-9505.	1.2	11
45	Radiativeâ€“convective equilibrium model intercomparison project. Geoscientific Model Development, 2018, 11, 793-813.	1.3	127
46	Influence of the Atlantic Meridional Overturning Circulation on the Tropical Climate Response to CO 2 Forcing. Geophysical Research Letters, 2018, 45, 8519-8528.	1.5	2
47	West African monsoon dynamics and precipitation: the competition between global SST warming and CO2 increase in CMIP5 idealized simulations. Climate Dynamics, 2017, 48, 1353-1373.	1.7	67
48	Climate research must sharpen its view. Nature Climate Change, 2017, 7, 89-91.	8.1	80
49	Observed Relationships between Cloud Vertical Structure and Convective Aggregation over Tropical Ocean. Journal of Climate, 2017, 30, 2187-2207.	1.2	46
50	Preface to the Special Issue â€œISSI Workshop on Shallow Clouds and Water Vapor, Circulation and Climate Sensitivityâ€• Surveys in Geophysics, 2017, 38, 1171-1172.	2.1	1
51	Mechanisms and Model Diversity of Trade-Wind Shallow Cumulus Cloud Feedbacks: A Review. Surveys in Geophysics, 2017, 38, 1331-1353.	2.1	48
52	Observing Convective Aggregation. Surveys in Geophysics, 2017, 38, 1199-1236.	2.1	102
53	Thermodynamic constraint on the depth of the global tropospheric circulation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8181-8186.	3.3	42
54	CMIP5 Scientific Gaps and Recommendations for CMIP6. Bulletin of the American Meteorological Society, 2017, 98, 95-105.	1.7	207

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55	Internal variability in a coupled general circulation model in radiativeâ€convective equilibrium. Geophysical Research Letters, 2017, 44, 5142-5149.	1.5	27
56	Fast and slow shifts of the zonalâ€mean intertropical convergence zone in response to an idealized anthropogenic aerosol. Journal of Advances in Modeling Earth Systems, 2017, 9, 870-892.	1.3	33
57	EUREC4A: A Field Campaign to Elucidate the Couplings Between Clouds, Convection and Circulation. Surveys in Geophysics, 2017, 38, 1529-1568.	2.1	132
58	The Cloud Feedback Model Intercomparison Project (CFMIP) contribution to CMIP6. Geoscientific Model Development, 2017, 10, 359-384.	1.3	186
59	EUREC4A: A Field Campaign to Elucidate the Couplings Between Clouds, Convection and Circulation. Space Sciences Series of ISSI, 2017, , 357-396.	0.0	2
60	Observing Convective Aggregation. Space Sciences Series of ISSI, 2017, , 27-64.	0.0	5
61	Mechanisms and Model Diversity of Trade-Wind Shallow Cumulus Cloud Feedbacks: A Review. Space Sciences Series of ISSI, 2017, , 159-181.	0.0	11
62	Overview of the Coupled Model Intercomparison Project Phase 6 (CMIP6) experimental design and organization. Geoscientific Model Development, 2016, 9, 1937-1958.	1.3	5,303
63	Coupling between lowerâ€tropospheric convective mixing and lowâ€level clouds: Physical mechanisms and dependence on convection scheme. Journal of Advances in Modeling Earth Systems, 2016, 8, 1892-1911.	1.3	66
64	Interpreting the inter-model spread in regional precipitation projections in the tropics: role of surface evaporation and cloud radiative effects. Climate Dynamics, 2016, 47, 2801-2815.	1.7	24
65	Thermodynamic control of anvil cloud amount. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8927-8932.	3.3	172
66	Prospects for narrowing bounds on Earth's equilibrium climate sensitivity. Earth's Future, 2016, 4, 512-522.	2.4	123
67	Spatial stabilization and intensification of moistening and drying rate patterns under future climate change. Climate Dynamics, 2016, 47, 951-965.	1.7	7
68	Shallowness of tropical low clouds as a predictor of climate modelsâ€™ response to warming. Climate Dynamics, 2016, 47, 433-449.	1.7	92
69	The impact of parametrized convection on cloud feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140414.	1.6	63
70	Physical mechanisms controlling the initiation of convective selfâ€aggregation in a General Circulation Model. Journal of Advances in Modeling Earth Systems, 2015, 7, 2060-2078.	1.3	114
71	What favors convective aggregation and why?. Geophysical Research Letters, 2015, 42, 5626-5634.	1.5	166
72	Moist processes during MJO events as diagnosed from water isotopic measurements from the IASI satellite. Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,619-10,636.	1.2	9

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73	Climate Symposium 2014: Findings and Recommendations. Bulletin of the American Meteorological Society, 2015, 96, ES145-ES147.	1.7	4
74	Adjustments in the Forcing-Feedback Framework for Understanding Climate Change. Bulletin of the American Meteorological Society, 2015, 96, 217-228.	1.7	239
75	Clouds, circulation and climate sensitivity. Nature Geoscience, 2015, 8, 261-268.	5.4	647
76	The Influence of Atmospheric Cloud Radiative Effects on the Large-Scale Atmospheric Circulation. Journal of Climate, 2015, 28, 7263-7278.	1.2	68
77	The diurnal cycle of marine cloud feedback in climate models. Climate Dynamics, 2015, 44, 1419-1436.	1.7	18
78	Using aquaplanets to understand the robust responses of comprehensive climate models to forcing. Climate Dynamics, 2015, 44, 1957-1977.	1.7	79
79	On the Correspondence between Mean Forecast Errors and Climate Errors in CMIP5 Models. Journal of Climate, 2014, 27, 1781-1798.	1.2	110
80	Influence of lowâ€cloud radiative effects on tropical circulation and precipitation. Journal of Advances in Modeling Earth Systems, 2014, 6, 513-526.	1.3	48
81	Climate Model Intercomparisons: Preparing for the Next Phase. Eos, 2014, 95, 77-78.	0.1	129
82	Spread in model climate sensitivity traced to atmospheric convective mixing. Nature, 2014, 505, 37-42.	13.7	586
83	The radiative impact of clouds on the shift of the Intertropical Convergence Zone. Geophysical Research Letters, 2014, 41, 4308-4315.	1.5	61
84	A global survey of the instantaneous linkages between cloud vertical structure and largeâ€scale climate. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3770-3792.	1.2	40
85	On the interpretation of inter-model spread in CMIP5 climate sensitivity estimates. Climate Dynamics, 2013, 41, 3339-3362.	1.7	423
86	Presentation and analysis of the IPSL and CNRM climate models used in CMIP5. Climate Dynamics, 2013, 40, 2089-2089.	1.7	25
87	Climate change projections using the IPSL-CM5 Earth System Model: from CMIP3 to CMIP5. Climate Dynamics, 2013, 40, 2123-2165.	1.7	1,425
88	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
89	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
90	Robust direct effect of carbon dioxide on tropical circulation and regional precipitation. Nature Geoscience, 2013, 6, 447-451.	5.4	338

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91	Interpretation of the positive low-cloud feedback predicted by a climate model under global warming. Climate Dynamics, 2013, 40, 2415-2431.	1.7	133
92	Water in the atmosphere. Physics Today, 2013, 66, 29-34.	0.3	89
93	Carbon Dioxide and Climate: Perspectives on a Scientific Assessment. , 2013, , 391-413.		48
94	CGILS: Results from the first phase of an international project to understand the physical mechanisms of low cloud feedbacks in single column models. Journal of Advances in Modeling Earth Systems, 2013, 5, 826-842.	1.3	140
95	Does convective aggregation need to be represented in cumulus parameterizations?. Journal of Advances in Modeling Earth Systems, 2013, 5, 692-703.	1.3	69
96	What Are Climate Models Missing?. Science, 2013, 340, 1053-1054.	6.0	333
97	Mid-tropospheric ÎD observations from IASI/MetOp at high spatial and temporal resolution. Atmospheric Chemistry and Physics, 2012, 12, 10817-10832.	1.9	62
98	How may lowâ€cloud radiative properties simulated in the current climate influence lowâ€cloud feedbacks under global warming?. Geophysical Research Letters, 2012, 39, .	1.5	50
99	The â€˜too few, too brightâ€™ tropical lowâ€cloud problem in CMIP5 models. Geophysical Research Letters, 2012, 39, .	1.5	261
100	Observational Evidence for Relationships between the Degree of Aggregation of Deep Convection, Water Vapor, Surface Fluxes, and Radiation. Journal of Climate, 2012, 25, 6885-6904.	1.2	174
101	Processâ€evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopologues: 1. Comparison between models and observations. Journal of Geophysical Research, 2012, 117, .	3.3	114
102	Processâ€evaluation of tropospheric humidity simulated by general circulation models using water vapor isotopic observations: 2. Using isotopic diagnostics to understand the mid and upper tropospheric moist bias in the tropics and subtropics. Journal of Geophysical Research, 2012, 117, .	3.3	77
103	The CGILS experimental design to investigate low cloud feedbacks in general circulation models by using singleâ€column and largeâ€eddy simulation models. Journal of Advances in Modeling Earth Systems, 2012, 4, .	1.3	35
104	Climate Data Challenges in the 21st Century. Science, 2011, 331, 700-702.	6.0	344
105	COSP: Satellite simulation software for model assessment. Bulletin of the American Meteorological Society, 2011, 92, 1023-1043.	1.7	483
106	Key features of the IPSL ocean atmosphere model and its sensitivity to atmospheric resolution. Climate Dynamics, 2010, 34, 1-26.	1.7	235
107	Evolution of the stable water isotopic composition of the rain sampled along Sahelian squall lines. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 227-242.	1.0	66
108	The GCMâ€Oriented CALIPSO Cloud Product (CALIPSOâ€GOCCP). Journal of Geophysical Research, 2010, 115, .	3.3	285

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109	Waterâ€stable isotopes in the LMDZ4 general circulation model: Model evaluation for presentâ€day and past climates and applications to climatic interpretations of tropical isotopic records. Journal of Geophysical Research, 2010, 115, .	3.3	261
110	Understanding the Sahelian water budget through the isotopic composition of water vapor and precipitation. Journal of Geophysical Research, 2010, 115, .	3.3	95
111	Correction to â€œWaterâ€stable isotopes in the LMDZ4 general circulation model: Model evaluation for presentâ€day and past climates and applications to climatic interpretations of tropical isotopic recordsâ€ Journal of Geophysical Research, 2010, 115, .	3.3	48
112	Combined measurements of 17Oexcess and d-excess in African monsoon precipitation: Implications for evaluating convective parameterizations. Earth and Planetary Science Letters, 2010, 298, 104-112.	1.8	84
113	Understanding the ¹⁷O excess glacialâ€interglacial variations in Vostok precipitation. Journal of Geophysical Research, 2010, 115, .	3.3	62
114	Observational Strategies at Meso- and Large Scales to Reduce Critical Uncertainties in Future Cloud Changes. , 2009, , 511-530.		2
115	Current Understanding and Quantification of Clouds in the Changing Climate System and Strategies for Reducing Critical Uncertainties. , 2009, , 557-574.		22
116	Use of CALIPSO lidar observations to evaluate the cloudiness simulated by a climate model. Geophysical Research Letters, 2008, 35, .	1.5	191
117	What controls the isotopic composition of the African monsoon precipitation? Insights from eventâ€based precipitation collected during the 2006 AMMA field campaign. Geophysical Research Letters, 2008, 35, .	1.5	113
118	Influence of convective processes on the isotopic composition (<i>Î´</i>¹⁸O and <i>Î´</i>D) of precipitation and water vapor in the tropics: 1. Radiativeâ€convective equilibrium and Tropical Oceanâ€“Global Atmosphereâ€“Coupled Oceanâ€Atmosphere Response Experiment (TOGAâ€COARE) simulations. Journal of Geophysical Research, 2008, 113, .	3.3	189
119	Influence of convective processes on the isotopic composition (<i>Î´</i>¹⁸O and <i>Î´</i>D) of precipitation and water vapor in the tropics: 2. Physical interpretation of the amount effect. Journal of Geophysical Research, 2008, 113, .	3.3	419
120	An Assessment of the Primary Sources of Spread of Global Warming Estimates from Coupled Atmosphereâ€“Ocean Models. Journal of Climate, 2008, 21, 5135-5144.	1.2	366
121	Impact of different convective cloud schemes on the simulation of the tropical seasonal cycle in a coupled oceanâ€“atmosphere model. Climate Dynamics, 2007, 29, 501-520.	1.7	37
122	How Well Do We Understand and Evaluate Climate Change Feedback Processes?. Journal of Climate, 2006, 19, 3445-3482.	1.2	849
123	On the Role of Clouds and Moisture in Tropical Waves: A Two-Dimensional Model Study. Journals of the Atmospheric Sciences, 2006, 63, 2140-2155.	0.6	18
124	Evaluation of a component of the cloud response to climate change in an intercomparison of climate models. Climate Dynamics, 2006, 26, 145-165.	1.7	47
125	On the contribution of local feedback mechanisms to the range of climate sensitivity in two GCM ensembles. Climate Dynamics, 2006, 27, 17-38.	1.7	334
126	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

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127	On the Role of Moist Processes in Tropical Intraseasonal Variability: Cloudâ€“Radiation and Moistureâ€“Convection Feedbacks. Journals of the Atmospheric Sciences, 2005, 62, 2770-2789.	0.6	110
128	SIRTA, a ground-based atmospheric observatory for cloud and aerosol research. Annales Geophysicae, 2005, 23, 253-275.	0.6	240
129	What are the climate controls on ÎD in precipitation in the Zongo Valley (Bolivia)? Implications for the Illimani ice core interpretation. Earth and Planetary Science Letters, 2005, 240, 205-220.	1.8	149
130	Comparing clouds and their seasonal variations in 10 atmospheric general circulation models with satellite measurements. Journal of Geophysical Research, 2005, 110, .	3.3	250
131	Marine boundary layer clouds at the heart of tropical cloud feedback uncertainties in climate models. Geophysical Research Letters, 2005, 32, .	1.5	961
132	On dynamic and thermodynamic components of cloud changes. Climate Dynamics, 2004, 22, 71-86.	1.7	373
133	A Parameterization of the Cloudiness Associated with Cumulus Convection; Evaluation Using TOGA COARE Data. Journals of the Atmospheric Sciences, 2001, 58, 3158-3183.	0.6	201
134	Combining ERBE and ISCCP data to assess clouds in the Hadley Centre, ECMWF and LMD atmospheric climate models. Climate Dynamics, 2001, 17, 905-922.	1.7	354
135	Indian Ocean Low Clouds during the Winter Monsoon. Journal of Climate, 2000, 13, 2028-2043.	1.2	28
136	Evaluation of HIV serial and parallel serologic testing algorithms in Abidjan, CÃ´te dâ€²Ivoire. Aids, 1999, 13, 109-117.	1.0	49
137	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
138	Sea Surface Temperature and Large-Scale Circulation Influences on Tropical Greenhouse Effect and Cloud Radiative Forcing. Journal of Climate, 1997, 10, 2055-2077.	1.2	175
139	Comparison and Satellite Assessment of NASA/DAO and NCEPâ€“NCAR Reanalyses over Tropical Ocean: Atmospheric Hydrology and Radiation. Journal of Climate, 1997, 10, 1441-1462.	1.2	54
140	The Role of Large-Scale Atmospheric Circulation in the Relationship between Tropical Convection and Sea Surface Temperature. Journal of Climate, 1997, 10, 381-392.	1.2	185
141	Comparison of the seasonal change in cloud-radiative forcing from atmospheric general circulation models and satellite observations. Journal of Geophysical Research, 1997, 102, 16593-16603.	3.3	41
142	Observed dependence of the water vapor and clear-sky greenhouse effect on sea surface temperature: comparison with climate warming experiments. Climate Dynamics, 1995, 11, 307-320.	1.7	45
143	Observed dependence of the water vapor and clear-sky greenhouse effect on sea surface temperature: comparison with climate warming experiments. Climate Dynamics, 1995, 11, 307-320.	1.7	5
144	Influence of the vertical structure of the atmosphere on the seasonal variation of precipitable water and greenhouse effect. Journal of Geophysical Research, 1994, 99, 12963.	3.3	21

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145	Climate Sensitivity: Cloud and Water Feedbacks and their Assessment. , 1994, , 353-367.		0
146	Satellite validation of GCMâ€simulated annual cycle of the earth radiation budget and cloud forcing. Journal of Geophysical Research, 1992, 97, 18061-18081.	3.3	23