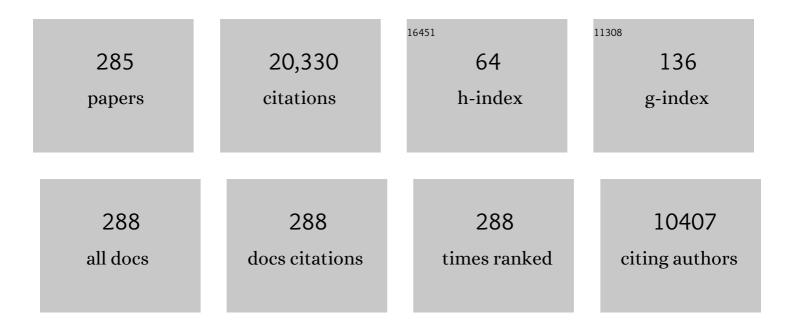
List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Multiscale Combined Action and Disturbance Characteristics of Pre-summer Extreme Precipitation Events over South China. Advances in Atmospheric Sciences, 2023, 40, 824-842.	4.3	3
2	Development of Moist Singular Vectors in GRAPES-GEPS and a Preliminary Evaluation. Atmosphere - Ocean, 2023, 61, 57-67.	1.6	1
3	An evaluation study of the DRP-4-DVar approach with the Lorenz-96 model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 63, 256.	1.7	10
4	Contributions of Weakly Coupled Data Assimilation–Based Land Initialization to Interannual Predictability of Summer Climate over Europe. Journal of Climate, 2022, 35, 517-535.	3.2	4
5	Decreasing Dust Over the Middle East Partly Caused by Irrigation Expansion. Earth's Future, 2022, 10, .	6.3	9
6	Evaluating the Nature and Extent of Changes to Climate Sensitivity Between FGOALSâ€g2 and FGOALSâ€g3. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	5
7	Impacts of Western Disturbances on Wintertime Precipitation Over the Southeastern Tibetan Plateau. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	1
8	Impact of Soil Freezingâ€Thawing Processes on August Rainfall Over Southern China. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	1
9	Double Trouble of Air Pollution by Anthropogenic Dust. Environmental Science & Technology, 2022, 56, 761-769.	10.0	21
10	Contrasting influences of biogeophysical and biogeochemical impacts of historical land use on global economic inequality. Nature Communications, 2022, 13, 2479.	12.8	16
11	Impacts of Suppressing Excessive Light Rain on Aerosol Radiative Effects and Health Risks. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	0
12	Unexpected Changes of Aerosol Burdens With Decreased Convection in the Context of Scaleâ€Aware Convection Schemes. Geophysical Research Letters, 2022, 49, .	4.0	0
13	Coupling of the CASâ€LSM Landâ€Surface Model With the CASâ€FGOALSâ€g3 Climate System Model. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002171.	3.8	3
14	Disproportionate control on aerosol burden by light rain. Nature Geoscience, 2021, 14, 72-76.	12.9	39
15	Parameterizing Subgrid Variations of Land Surface Heat Fluxes to the Atmosphere Improves Boreal Summer Land Precipitation Simulation With the NCAR CESM1.2. Geophysical Research Letters, 2021, 48, .	4.0	4
16	Climate response to introduction of the ESA CCI land cover data to the NCAR CESM. Climate Dynamics, 2021, 56, 4109-4127.	3.8	11
17	Significant Land Contributions to Interannual Predictability of East Asian Summer Monsoon Rainfall. Earth's Future, 2021, 9, e2020EF001762.	6.3	18
18	Improved decadal predictions of <scp>East Asian</scp> summer monsoon with a weakly coupled data assimilation scheme. International Journal of Climatology, 2021, 41, 5550-5571.	3.5	4

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19	Developing a common, flexible and efficient framework for weakly coupled ensemble data assimilation based on C-Coupler2.0. Geoscientific Model Development, 2021, 14, 2635-2657.	3.6	2
20	A new method for multi-point pollution source identification. Atmospheric and Oceanic Science Letters, 2021, , 100098.	1.3	2
21	An inverse method to estimate the source term of atmospheric pollutant releases. Atmospheric Environment, 2021, 260, 118554.	4.1	2
22	Important role of North Atlantic air–sea coupling in the interannual predictability of summer precipitation over the eastern Tibetan Plateau. Climate Dynamics, 2021, 56, 1433-1448.	3.8	7
23	Comparison of sea ice kinematics at different resolutions modeled with a grid hierarchy in the Community Earth System Model (version 1.2.1). Geoscientific Model Development, 2021, 14, 603-628.	3.6	3
24	Mechanisms of the decadal variability of monsoon rainfall in the southern Tibetan Plateau. Environmental Research Letters, 2021, 16, 014011.	5.2	39
25	Simulated Spatial and Temporal Distribution of Freezing and Thawing Fronts in CASâ€FGOALSâ€g3. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002152.	3.8	2
26	Study on the Sensitivity of Initial Perturbations to the Development of a Vortex Observed in Southwest China. Journal of Geophysical Research D: Atmospheres, 2021, 126, .	3.3	4
27	Implementation of Groundwater Lateral Flow and Human Water Regulation in CASâ€FGOALSâ€g3. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032289.	3.3	7
28	The GAMIL3: Model Description and Evaluation. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032574.	3.3	13
29	Preliminary evaluation of MJO simulation in GAMIL3 (Grid-point atmospheric model of IAP LASG). Atmospheric and Oceanic Science Letters, 2020, 13, 542-549.	1.3	1
30	Reducing Numerical Diffusion in Dynamical Coupling Between Atmosphere and Ocean in Community Earth System Model Version 1.2.1. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002052.	3.8	1
31	Perspectives for Tibetan Plateau data assimilation. National Science Review, 2020, 7, 495-499.	9.5	4
32	Analysis of and Solution to the Polar Numerical Noise Within the Shallowâ€Water Model on the Latitude‣ongitude Grid. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002047.	3.8	5
33	Favorable Circulation Patterns and Moisture Sources for Wintertime Extreme Precipitation Events Over the Balkhashâ€Junggar Region. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032275.	3.3	2
34	Model Uncertainty Representation for a Convection-Allowing Ensemble Prediction System Based on CNOP-P. Advances in Atmospheric Sciences, 2020, 37, 817-831.	4.3	9
35	Application and Characteristic Analysis of the Moist Singular Vector in GRAPES-GEPS. Advances in Atmospheric Sciences, 2020, 37, 1164-1178.	4.3	2
36	CAS FGOALS-g3 Model Datasets for the CMIP6 Scenario Model Intercomparison Project (ScenarioMIP). Advances in Atmospheric Sciences, 2020, 37, 1081-1092.	4.3	31

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37	A robust equatorial Pacific westerly response to tropical volcanism in multiple models. Climate Dynamics, 2020, 55, 3413-3429.	3.8	14
38	The Flexible Clobal Oceanâ€Atmosphere‣and System Model Gridâ€Point Version 3 (FGOALSâ€g3): Description and Evaluation. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002012.	3.8	129
39	Using a skillful statistical model to predict September sea ice covering Arctic shipping routes. Acta Oceanologica Sinica, 2020, 39, 11-25.	1.0	3
40	A DRPâ€4DVarâ€Based Coupled Data Assimilation System With a Simplified Offâ€Line Localization Technique for Decadal Predictions. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001768.	3.8	9
41	Variability scaling and consistency in airborne and satellite altimetry measurements of Arctic sea ice. Cryosphere, 2020, 14, 751-767.	3.9	3
42	Development of Climate and Earth System Models in China: Past Achievements and New CMIP6 Results. Journal of Meteorological Research, 2020, 34, 1-19.	2.4	46
43	A new DRP-4DVar-based coupled data assimilation system for decadal predictions using a fast online localization technique. Climate Dynamics, 2020, 54, 3541-3559.	3.8	8
44	Community Integrated Earth System Model (CIESM): Description and Evaluation. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002036.	3.8	44
45	Model Biases in the Simulation of the Springtime North Pacific ENSO Teleconnection. Journal of Climate, 2020, 33, 9985-10002.	3.2	9
46	DiRong1.0: a distributed implementation for improving routing network generation in model coupling. Geoscientific Model Development, 2020, 13, 6253-6263.	3.6	3
47	A possible mechanism for the occurrence of wintertime extreme precipitation events over South China. Climate Dynamics, 2019, 52, 2367-2384.	3.8	30
48	The Collective Contribution of Atmospheric and Oceanic Components to ENSO Asymmetry. Atmosphere, 2019, 10, 469.	2.3	2
49	Warm bias of sea surface temperature in Eastern boundary current regions—a study of effects of horizontal resolution in CESM. Ocean Dynamics, 2019, 69, 939-954.	2.2	11
50	PatCC1: an efficient parallel triangulation algorithm for spherical and planar grids with commonality and parallel consistency. Geoscientific Model Development, 2019, 12, 3311-3328.	3.6	4
51	Impacts of Changes of External Forcings from CMIP5 to CMIP6 on Surface Temperature in FGOALS-g2. Scientific Online Letters on the Atmosphere, 2019, 15, 211-215.	1.4	12
52	Impacts of Wintertime Extratropical Cyclones on Temperature and Precipitation Over Northeastern China During 1979–2016. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1514-1536.	3.3	11
53	Synoptic Conditions and Moisture Sources for Extreme Snowfall Events Over East China. Journal of Geophysical Research D: Atmospheres, 2019, 124, 601-623.	3.3	16
54	Moisture Sources for Wintertime Intense Precipitation Events Over the Three Snowy Subregions of the Tibetan Plateau. Journal of Geophysical Research D: Atmospheres, 2019, 124, 12708-12725.	3.3	10

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55	Key Factors Affecting Environmental Protection Values in China. Sustainability, 2019, 11, 304.	3.2	1
56	The dominant role of the atmospheric component of coupled models in ENSO amplitude simulations. Climate Dynamics, 2019, 52, 4833-4847.	3.8	4
57	Fidelity of the Observational/Reanalysis Datasets and Global Climate Models in Representation of Extreme Precipitation in East China. Journal of Climate, 2019, 32, 195-212.	3.2	32
58	A collaborative analysis framework for distributed gridded environmental data. Environmental Modelling and Software, 2019, 111, 324-339.	4.5	4
59	Comparison of three ice cloud optical schemes in climate simulations with community atmospheric model version 5. Atmospheric Research, 2018, 204, 37-53.	4.1	12
60	Effects of intraseasonal oscillation on South China Sea summer monsoon onset. Climate Dynamics, 2018, 51, 2543-2558.	3.8	46
61	Are Peak Summer Sultry Heat Wave Days over the Yangtze–Huaihe River Basin Predictable?. Journal of Climate, 2018, 31, 2185-2196.	3.2	56
62	Uncertainties in simulated El Niño–Southern Oscillation arising from internal climate variability. Atmospheric Science Letters, 2018, 19, e805.	1.9	5
63	Dynamics-oriented diagnostics for the Madden-Julian Oscillation. Journal of Climate, 2018, , .	3.2	12
64	How are heat waves over Yangtze River valley associated with atmospheric quasi-biweekly oscillation?. Climate Dynamics, 2018, 51, 4421-4437.	3.8	41
65	Possible mechanisms for four regimes associated with cold events over East Asia. Climate Dynamics, 2018, 51, 35-56.	3.8	25
66	Grand European and Asian-Pacific multi-model seasonal forecasts: maximization of skill and of potential economical value to end-users. Climate Dynamics, 2018, 50, 2719-2738.	3.8	3
67	Precursors of September Arctic Sea-Ice Extent Based on Causal Effect Networks. Atmosphere, 2018, 9, 437.	2.3	4
68	Improving Seasonal Prediction of East Asian Summer Rainfall Using NESM3.0: Preliminary Results. Atmosphere, 2018, 9, 487.	2.3	10
69	Interannual Variation and Regime Shift of the Evaporative Moisture Sources for Wintertime Precipitation Over Southern China. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,168.	3.3	8
70	On the Formation Mechanism for Wintertime Extreme Precipitation Events Over the Southeastern Tibetan Plateau. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,692.	3.3	19
71	A quantitative analysis of global environmental protection values based on the world values survey data from 1994 to 2014. Environmental Monitoring and Assessment, 2018, 190, 593.	2.7	9
72	Origin of Warm SST Bias over the Atlantic Cold Tongue in the Coupled Climate Model FGOALS-g2. Atmosphere, 2018, 9, 275.	2.3	5

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73	C-Coupler2: a flexible and user-friendly community coupler for model coupling and nesting. Geoscientific Model Development, 2018, 11, 3557-3586.	3.6	25
74	The FGOALS climate system model as a modeling tool for supporting climate sciences: An overview. Earth and Planetary Physics, 2018, 2, 276-291.	1.1	19
75	On the retrieval of sea ice thickness and snow depth usingÂconcurrent laser altimetry and L-band remoteÂsensingÂdata. Cryosphere, 2018, 12, 993-1012.	3.9	17
76	The NUIST Earth System ModelÂ(NESM) versionÂ3: description and preliminary evaluation. Geoscientific Model Development, 2018, 11, 2975-2993.	3.6	135
77	Asian Summer Precipitation over the Past 544 Years Reconstructed by Merging Tree Rings and Historical Documentary Records. Journal of Climate, 2018, 31, 7845-7861.	3.2	56
78	Cloud Longwave Scattering Effect and Its Impact on Climate Simulation. Atmosphere, 2018, 9, 153.	2.3	10
79	Dynamic and Thermodynamic Factors Associated with Different Precipitation Regimes over South China during Pre-Monsoon Season. Atmosphere, 2018, 9, 219.	2.3	8
80	Impacts of uncertain cloud-related parameters on Pacific Walker circulation simulation in GAMIL2. Atmospheric and Oceanic Science Letters, 2018, 11, 7-14.	1.3	1
81	An approach to localization for ensemble-based data assimilation. PLoS ONE, 2018, 13, e0191088.	2.5	10
82	Moisture Sources for Wintertime Extreme Precipitation Events Over South China During 1979–2013. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6690-6712.	3.3	36
83	Symplectic Exponential Runge–Kutta Methods for Solving Nonlinear Hamiltonian Systems. , 2018, , 85-106.		0
84	How predictable is the winter extremely cold days over temperate East Asia?. Climate Dynamics, 2017, 48, 2557-2568.	3.8	22
85	Potential vorticity regimes over East Asia during winter. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1524-1544.	3.3	14
86	Fundamental Causes of Propagating and Nonpropagating MJOs in MJOTF/GASS Models. Journal of Climate, 2017, 30, 3743-3769.	3.2	102
87	Boreal Summer Intraseasonal Phases Identified by Nonlinear Multivariate Empirical Orthogonal Function–Based Self-Organizing Map (ESOM) Analysis. Journal of Climate, 2017, 30, 3513-3528.	3.2	11
88	Assessment of Responses of Tropical Pacific Air–Sea CO ₂ Flux to ENSO in 14 CMIP5 Models. Journal of Climate, 2017, 30, 8595-8613.	3.2	11
89	Variable and robust East Asian monsoon rainfall response to El Niño over the past 60 years (1957–2016). Advances in Atmospheric Sciences, 2017, 34, 1235-1248.	4.3	105
90	Improving L-band radiation model and representation of small-scale variability to simulate brightness temperature of sea ice. International Journal of Remote Sensing, 2017, 38, 7070-7084.	2.9	6

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91	MJO Propagation Shaped by Zonal Asymmetric Structures: Results from 24 GCM Simulations. Journal of Climate, 2017, 30, 7933-7952.	3.2	39
92	Formation Mechanism for 2015/16 Super El Niño. Scientific Reports, 2017, 7, 2975.	3.3	89
93	A â€~selfâ€adjustment' mechanism for mixedâ€layer heat budget in the equatorial Atlantic cold tongue. Atmospheric Science Letters, 2017, 18, 82-87.	1.9	2
94	On the cooccurrence of wintertime temperature anomalies over eastern Asia and eastern North America. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6844-6867.	3.3	4
95	Exploring the combined effects of the Arctic Oscillation and ENSO on the wintertime climate over East Asia using selfâ€organizing maps. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9107-9129.	3.3	15
96	On the generation of coastline-following grids for ocean models—trade-off between orthogonality and alignment to coastlines. Ocean Dynamics, 2017, 67, 1095-1104.	2.2	9
97	A preliminary evaluation of high-performance advanced regional eta-coordinate model (H-AREM). Atmospheric and Oceanic Science Letters, 2017, 10, 1-8.	1.3	1
98	New approach to incorporating the impacts of non-hydrostatic perturbations in atmospheric models. Atmospheric and Oceanic Science Letters, 2017, 10, 379-384.	1.3	0
99	Characterizing two types of transient intraseasonal oscillations in the Eastern Tibetan Plateau summer rainfall. Climate Dynamics, 2017, 48, 1749-1768.	3.8	27
100	Predictability and prediction of summer rainfall in the arid and semi-arid regions of China. Climate Dynamics, 2017, 49, 419-431.	3.8	22
101	A single ice approach using varying ice particle properties in global climate model microphysics. Journal of Advances in Modeling Earth Systems, 2017, 9, 2138-2157.	3.8	21
102	Reduction of initial shock in decadal predictions using a new initialization strategy. Geophysical Research Letters, 2017, 44, 8538-8547.	4.0	24
103	Quantification of the responses of equatorial Pacific surface wind to uncertain cloudâ€related parameters in GAMIL2. Atmospheric Science Letters, 2017, 18, 458-465.	1.9	4
104	Predictable patterns of the May–June rainfall anomaly over East Asia. Journal of Geophysical Research D: Atmospheres, 2017, 122, 2203-2217.	3.3	28
105	Data Synergy between Altimetry and L-Band Passive Microwave Remote Sensing for the Retrieval of Sea Ice Parameters—A Theoretical Study of Methodology. Remote Sensing, 2017, 9, 1079.	4.0	7
106	A new adaptive data transfer library for model coupling. Geoscientific Model Development, 2016, 9, 2099-2113.	3.6	1
107	GMMIP (v1.0) contribution to CMIP6: Global Monsoons Model Inter-comparison Project. Geoscientific Model Development, 2016, 9, 3589-3604.	3.6	93
108	On the Non-Stationary Relationship between the Siberian High and Arctic Oscillation. PLoS ONE, 2016, 11, e0158122.	2.5	29

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109	A Modeling Study of a Low-Level Jet along the Yun-Gui Plateau in South China. Journal of Applied Meteorology and Climatology, 2016, 55, 41-60.	1.5	22
110	Global Air–Sea CO2 Flux in 22 CMIP5 Models: Multiyear Mean and Interannual Variability*. Journal of Climate, 2016, 29, 2407-2431.	3.2	20
111	Summer precipitation anomalies in Asia and North America induced by Eurasian non-monsoon land heating versus ENSO. Scientific Reports, 2016, 6, 21346.	3.3	19
112	Characteristics of pressure gradient force errors in a terrain-following coordinate. Atmospheric and Oceanic Science Letters, 2016, 9, 211-218.	1.3	2
113	A potential vorticityâ€based index for the East Asian winter monsoon. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9382-9399.	3.3	18
114	Summer rainfall over the southwestern Tibetan Plateau controlled by deep convection over the Indian subcontinent. Nature Communications, 2016, 7, 10925.	12.8	160
115	Reducing the climate shift in a new coupled model. Science Bulletin, 2016, 61, 488-494.	9.0	6
116	Pressure gradient errors in a covariant method of implementing the $\langle i \rangle \tilde{I} \langle i \rangle$ -coordinate: idealized experiments and geometric analysis. Atmospheric and Oceanic Science Letters, 2016, 9, 270-276.	1.3	5
117	Reducing the biases in shortwave cloud radiative forcing in tropical and subtropical regions from the perspective of boundary layer processes. Science China Earth Sciences, 2016, 59, 1427-1439.	5.2	8
118	Human-induced greening of the northern extratropical land surface. Nature Climate Change, 2016, 6, 959-963.	18.8	145
119	Long-Lead Seasonal Prediction of China Summer Rainfall Using an EOF–PLS Regression-Based Methodology*,+. Journal of Climate, 2016, 29, 1783-1796.	3.2	21
120	Tracing the source of <scp>ENSO</scp> simulation differences to the atmospheric component of two <scp>CGCMs</scp> . Atmospheric Science Letters, 2016, 17, 155-161.	1.9	9
121	Advection errors in an orthogonal terrainâ€following coordinate: idealized 2â€D experiments using steep terrains. Atmospheric Science Letters, 2016, 17, 243-250.	1.9	4
122	Peak-summer East Asian rainfall predictability and prediction part I: Southeast Asia. Climate Dynamics, 2016, 47, 1-13.	3.8	79
123	The Role of Moist Processes in Shortwave Radiative Feedback during ENSO in the CMIP5 Models. Journal of Climate, 2015, 28, 9892-9908.	3.2	27
124	Rethinking Indian monsoon rainfall prediction in the context of recent global warming. Nature Communications, 2015, 6, 7154.	12.8	165
125	Direct effect of lowerâ€ŧropospheric diabatic heating on surface wind over the equatorial Pacific. Atmospheric Science Letters, 2015, 16, 96-102.	1.9	1
126	Prediction of Meiyu rainfall in Taiwan by multi-lead physical–empirical models. Climate Dynamics, 2015, 44, 3033-3042.	3.8	26

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127	Major modes of short-term climate variability in the newly developed NUIST Earth System Model (NESM). Advances in Atmospheric Sciences, 2015, 32, 585-600.	4.3	24
128	Asian summer monsoon rainfall predictability: a predictable mode analysis. Climate Dynamics, 2015, 44, 61-74.	3.8	106
129	Predictability and prediction skill of the boreal summer intraseasonal oscillation in the Intraseasonal Variability Hindcast Experiment. Climate Dynamics, 2015, 45, 2123-2135.	3.8	57
130	Nonlinear Ensemble Parameter Perturbation for Climate Models. Journal of Climate, 2015, 28, 1112-1125.	3.2	3
131	An orthogonal terrain-following coordinate and its preliminary tests using 2-D idealized advection experiments. Geoscientific Model Development, 2014, 7, 1767-1778.	3.6	10
132	A new method for quality control of Chinese rawinsonde wind observations. Advances in Atmospheric Sciences, 2014, 31, 1293-1304.	4.3	1
133	Future Change of Northern Hemisphere Summer Tropical–Extratropical Teleconnection in CMIP5 Models*. Journal of Climate, 2014, 27, 3643-3664.	3.2	43
134	Improvements in LICOM2. Part I: Vertical Mixing. Journal of Atmospheric and Oceanic Technology, 2014, 31, 531-544.	1.3	4
135	Evaluation of conditional non-linear optimal perturbation obtained by an ensemble-based approach using the Lorenz-63 model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2014, 66, 22773.	1.7	8
136	Improvements in LICOM2. Part II: Arctic Circulation. Journal of Atmospheric and Oceanic Technology, 2014, 31, 233-245.	1.3	4
137	Roles of Synoptic to Quasi-Biweekly Disturbances in Generating the Summer 2003 Heavy Rainfall in East China. Monthly Weather Review, 2014, 142, 886-904.	1.4	30
138	Improving Parallel Performance of a Finite-Difference AGCM on Modern High-Performance Computers. Journal of Atmospheric and Oceanic Technology, 2014, 31, 2157-2168.	1.3	9
139	Variability of atlantic meridional overturning circulation in FGOALS-g2. Advances in Atmospheric Sciences, 2014, 31, 95-109.	4.3	9
140	Prediction of early summer rainfall over South China by a physical-empirical model. Climate Dynamics, 2014, 43, 1883-1891.	3.8	57
141	Evaluation of snow depth and snow cover fraction simulated by two versions of the flexible global ocean-atmosphere-land system model. Advances in Atmospheric Sciences, 2014, 31, 407-420.	4.3	10
142	The Role of Nonconvective Condensation Processes in Response of Surface Shortwave Cloud Radiative Forcing to El Niño Warming. Journal of Climate, 2014, 27, 6721-6736.	3.2	24
143	Advances in low-level jet research and future prospects. Journal of Meteorological Research, 2014, 28, 57-75.	1.0	19
144	A fast input/output library for high-resolution climate models. Geoscientific Model Development, 2014, 7, 93-103.	3.6	15

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145	The effects of assimilating satellite brightness temperature and bogus data on the simulation of Typhoon Kalmaegi (2008). Journal of Meteorological Research, 2013, 27, 415-434.	1.0	4
146	The flexible global ocean-atmosphere-land system model, Grid-point Version 2: FGOALS-g2. Advances in Atmospheric Sciences, 2013, 30, 543-560.	4.3	253
147	The Flexible Global Ocean-Atmosphere-Land system model, Spectral Version 2: FGOALS-s2. Advances in Atmospheric Sciences, 2013, 30, 561-576.	4.3	210
148	Simulation of sea ice in FGOALS-g2: Climatology and late 20th century changes. Advances in Atmospheric Sciences, 2013, 30, 658-673.	4.3	10
149	Preliminary evaluations of FGOALS-g2 for decadal predictions. Advances in Atmospheric Sciences, 2013, 30, 674-683.	4.3	18
150	Evaluation of grid-point atmospheric model of IAP LASG version 2 (GAMIL2). Advances in Atmospheric Sciences, 2013, 30, 855-867.	4.3	75
151	Two-moment bulk stratiform cloud microphysics in the grid-point atmospheric model of IAP LASG (GAMIL). Advances in Atmospheric Sciences, 2013, 30, 868-883.	4.3	9
152	Seasonal prediction and predictability of the Asian winter temperature variability. Climate Dynamics, 2013, 41, 573-587.	3.8	68
153	Teleconnections associated with Northern Hemisphere summer monsoon intraseasonal oscillation. Climate Dynamics, 2013, 40, 2761-2774.	3.8	64
154	Real-time multivariate indices for the boreal summer intraseasonal oscillation over the Asian summer monsoon region. Climate Dynamics, 2013, 40, 493-509.	3.8	368
155	Mechanisms for the Advanced Asian Summer Monsoon Onset since the Mid-to-Late 1990s*. Journal of Climate, 2013, 26, 1993-2009.	3.2	101
156	Global Atmospheric Emissions of Polycyclic Aromatic Hydrocarbons from 1960 to 2008 and Future Predictions. Environmental Science & Technology, 2013, 47, 6415-6424.	10.0	661
157	Cracking the MJO nut. Geophysical Research Letters, 2013, 40, 1223-1230.	4.0	154
158	Trajectory-Tracking Scheme in Lagrangian Form for Solving Linear Advection Problems: Interface Spatial Discretization. Monthly Weather Review, 2013, 141, 324-339.	1.4	9
159	Subtropical High predictability establishes a promising way for monsoon and tropical storm predictions. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2718-2722.	7.1	477
160	Northern Hemisphere summer monsoon intensified by mega-El Niño/southern oscillation and Atlantic multidecadal oscillation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5347-5352.	7.1	313
161	Intraseasonal Forecasting of the Asian Summer Monsoon in Four Operational and Research Models*. Journal of Climate, 2013, 26, 4186-4203.	3.2	46
162	Detecting human influence on extreme temperatures in China. Geophysical Research Letters, 2013, 40, 1171-1176.	4.0	91

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163	Season-Dependent Forecast Skill of the Leading Forced Atmospheric Circulation Pattern over the North Pacific and North American Region*. Journal of Climate, 2012, 25, 7248-7265.	3.2	14
164	A DRP–4DVar Data Assimilation Scheme for Typhoon Initialization Using Sea Level Pressure Data. Monthly Weather Review, 2012, 140, 1191-1203.	1.4	10
165	What caused the cool summer over northern Central Asia, East Asia and central North America during 2009?. Environmental Research Letters, 2012, 7, 044015.	5.2	22
166	Evaluating the Performances of GAMIL1.0 and GAMIL2.0 during TWPICE with CAPT. Atmospheric and Oceanic Science Letters, 2012, 5, 38-42.	1.3	12
167	MJO Simulations by GAMIL1.0 and GAMIL2.0. Atmospheric and Oceanic Science Letters, 2012, 5, 49-54.	1.3	1
168	A New Approach to Implement Sigma Coordinate in a Numerical Model. Communications in Computational Physics, 2012, 12, 1033-1050.	1.7	7
169	Trajectory-Tracking Scheme in Lagrangian Form for Solving Linear Advection Problems: Preliminary Tests. Monthly Weather Review, 2012, 140, 650-663.	1.4	12
170	Reduction of the thermocline feedback associated with mean SST bias in ENSO simulation. Climate Dynamics, 2012, 39, 1413-1430.	3.8	41
171	Reducing biases in regional climate downscaling by applying Bayesian model averaging on large-scale forcing. Climate Dynamics, 2012, 39, 2523-2532.	3.8	15
172	Assessment of the longâ€lead probabilistic prediction for the Asian summer monsoon precipitation (1983–2011) based on the APCC multimodel system and a statistical model. Journal of Geophysical Research, 2012, 117, .	3.3	22
173	Reduction of systematic biases in regional climate downscaling through ensemble forcing. Climate Dynamics, 2012, 38, 655-665.	3.8	30
174	Deficiencies and possibilities for long-lead coupled climate prediction of the Western North Pacific-East Asian summer monsoon. Climate Dynamics, 2011, 36, 1173-1188.	3.8	81
175	How predictable is the northern hemisphere summer upper-tropospheric circulation?. Climate Dynamics, 2011, 37, 1189-1203.	3.8	84
176	Sensitivity of regional climate simulations of the summer 1998 extreme rainfall to convective parameterization schemes. Meteorology and Atmospheric Physics, 2011, 114, 1-15.	2.0	10
177	Rainfall assimilation using a new four-dimensional variational method: A single-point observation experiment. Advances in Atmospheric Sciences, 2011, 28, 735-742.	4.3	3
178	Versions g1.0 and g1.1 of the LASG/IAP Flexible Global Ocean-Atmosphere-Land System model. Advances in Atmospheric Sciences, 2011, 28, 99-117.	4.3	34
179	Impact of analysis-time tuning on the performance of the DRP-4DVar approach. Advances in Atmospheric Sciences, 2011, 28, 207-216.	4.3	2
180	Characteristics of a Terrain-Following Sigma Coordinate. Atmospheric and Oceanic Science Letters, 2011, 4, 157-161.	1.3	8

#	Article	IF	CITATIONS
181	Assimilation of GPS Radio Occultation Data for an Intense Atmospheric River with the NCEP Regional GSI System. Monthly Weather Review, 2011, 139, 2170-2183.	1.4	18
182	Sensitivity of Dynamical Intraseasonal Prediction Skills to Different Initial Conditions. Monthly Weather Review, 2011, 139, 2572-2592.	1.4	60
183	A Four-Dimensional Variational Data Assimilation Approach with Analysis at the End of Assimilation Window. Part I: Methodology and Preliminary Tests. Journal of the Meteorological Society of Japan, 2011, 89, 611-623.	1.8	1
184	Tropospheric aerosol size distributions simulated by three online global aerosol models using the M7 microphysics module. Atmospheric Chemistry and Physics, 2010, 10, 6409-6434.	4.9	23
185	Simulation and evaluation of terrestrial ecosystem NPP with M-SDGVM over continental China. Advances in Atmospheric Sciences, 2010, 27, 427-442.	4.3	19
186	Potential predictability of sea surface temperature in a coupled ocean-atmosphere GCM. Advances in Atmospheric Sciences, 2010, 27, 921-936.	4.3	7
187	An economical approach to four-dimensional variational data assimilation. Advances in Atmospheric Sciences, 2010, 27, 715-727.	4.3	73
188	The structure of background-error covariance in a four-dimensional variational data assimilation system: Single-point experiment. Advances in Atmospheric Sciences, 2010, 27, 1303-1310.	4.3	5
189	How are seasonal prediction skills related to models' performance on mean state and annual cycle?. Climate Dynamics, 2010, 35, 267-283.	3.8	131
190	Reconstruct the Mesoscale Information of Typhoon with BDA Method Combined with AMSU-A Data Assimilation Method. Advances in Meteorology, 2010, 2010, 1-11.	1.6	3
191	Conditional Nonlinear Optimal Perturbations: Adjoint-Free Calculation Method and Preliminary Test. Monthly Weather Review, 2010, 138, 1043-1049.	1.4	29
192	Aerosol Indirect Effects on Warm Clouds in the Grid-Point Atmospheric Model of IAP LASG (GAMIL). Atmospheric and Oceanic Science Letters, 2010, 3, 237-241.	1.3	12
193	Impact of horizontal resolution on the regional climate simulations of the summer 1998 extreme rainfall along the Yangtze River Basin. Journal of Geophysical Research, 2010, 115, .	3.3	25
194	Predictability of summer northwest Pacific climate in 11 coupled model hindcasts: Local and remote forcing. Journal of Geophysical Research, 2010, 115, .	3.3	78
195	ENSO Hindcast Experiments Using a Coupled GCM. Atmospheric and Oceanic Science Letters, 2009, 2, 7-13.	1.3	7
196	Comparison of Local and Nonlocal Observation Operators for the Assimilation of GPS RO Data with the NCEP GSI System: An OSSE Study. Monthly Weather Review, 2009, 137, 3575-3587.	1.4	24
197	Applications of the Multi-Symplectic Euler-box Scheme. , 2009, , .		0
198	Distinct Principal Modes of Early and Late Summer Rainfall Anomalies in East Asia*. Journal of Climate, 2009, 22, 3864-3875.	3.2	123

#	Article	IF	CITATIONS
199	An Ensemble-Based Four-Dimensional Variational Data Assimilation Scheme. Part II: Observing System Simulation Experiments with Advanced Research WRF (ARW). Monthly Weather Review, 2009, 137, 1687-1704.	1.4	115
200	Differentiation transforming system. Progress in Natural Science: Materials International, 2009, 19, 397-406.	4.4	1
201	Advance and prospectus of seasonal prediction: assessment of the APCC/CliPAS 14-model ensemble retrospective seasonal prediction (1980–2004). Climate Dynamics, 2009, 33, 93-117.	3.8	347
202	Adjoint code generator. Science in China Series F: Information Sciences, 2009, 52, 926-941.	1,1	0
203	Sensitivity of the carbon storage of potential vegetation to historical climate variability and CO2 in continental China. Advances in Atmospheric Sciences, 2009, 26, 87-100.	4.3	11
204	The East Asia-western North Pacific boreal summer intraseasonal oscillation simulated in GAMIL 1.1.1. Advances in Atmospheric Sciences, 2009, 26, 480-492.	4.3	10
205	A review on aspects of climate simulation assessment. Advances in Atmospheric Sciences, 2009, 26, 736-747.	4.3	4
206	An empirical seasonal prediction model of the east Asian summer monsoon using ENSO and NAO. Journal of Geophysical Research, 2009, 114, .	3.3	403
207	Critical Roles of the Stratiform Rainfall in Sustaining the Madden–Julian Oscillation: GCM Experiments*. Journal of Climate, 2009, 22, 3939-3959.	3.2	80
208	How Well Do Atmospheric General Circulation Models Capture the Leading Modes of the Interannual Variability of the Asian–Australian Monsoon?. Journal of Climate, 2009, 22, 1159-1173.	3.2	184
209	Consistency problem with tracer advection in the Atmospheric Model GAMIL. Advances in Atmospheric Sciences, 2008, 25, 306-318.	4.3	15
210	Simulations of the East Asian subtropical westerly jet by LASG/IAP AGCMs. Advances in Atmospheric Sciences, 2008, 25, 447-457.	4.3	8
211	Sensitivity of the Grid-point Atmospheric Model of IAP LASG (GAMIL1.1.0) climate simulations to cloud droplet effective radius and liquid water path. Advances in Atmospheric Sciences, 2008, 25, 529-540.	4.3	8
212	Coupled model simulations of climate changes in the 20th century and beyond. Advances in Atmospheric Sciences, 2008, 25, 641-654.	4.3	41
213	A fast version of LASG/IAP climate system model and its 1000-year control integration. Advances in Atmospheric Sciences, 2008, 25, 655-672.	4.3	39
214	A new global four-dimensional variational ocean data assimilation system and its application. Advances in Atmospheric Sciences, 2008, 25, 680-691.	4.3	1
215	Numerical experiments for Typhoon Dan incorporating AMSU-A retrieved data with 3DVM. Advances in Atmospheric Sciences, 2008, 25, 692-703.	4.3	5
216	Local structure-preserving algorithms for partial differential equations. Science in China Series A: Mathematics, 2008, 51, 2115-2136.	0.5	41

#	Article	IF	CITATIONS
217	Interannual variations of the boreal summer intraseasonal variability predicted by ten atmosphere–ocean coupled models. Climate Dynamics, 2008, 30, 485-496.	3.8	46
218	How accurately do coupled climate models predict the leading modes of Asian-Australian monsoon interannual variability?. Climate Dynamics, 2008, 30, 605-619.	3.8	129
219	Hydrological issues in lateral boundary conditions for regional climate modeling: simulation of east asian summer monsoon in 1998. Climate Dynamics, 2008, 31, 477-490.	3.8	33
220	Global monsoon: Dominant mode of annual variation in the tropics. Dynamics of Atmospheres and Oceans, 2008, 44, 165-183.	1.8	368
221	Anticorrelated intensity change of the quasiâ€biweekly and 30–50â€day oscillations over the South China Sea. Geophysical Research Letters, 2008, 35, .	4.0	51
222	Daily to submonthly weather and climate characteristics of the summer 1998 extreme rainfall over the Yangtze River Basin. Journal of Geophysical Research, 2008, 113, .	3.3	37
223	A Comparison of Two Tropical Cyclone Bogussing Schemes. Weather and Forecasting, 2008, 23, 194-204.	1.4	16
224	An Ensemble-Based Four-Dimensional Variational Data Assimilation Scheme. Part I: Technical Formulation and Preliminary Test. Monthly Weather Review, 2008, 136, 3363-3373.	1.4	209
225	Evaluation of the atmospheric transport in a GCM using radon measurements: sensitivity to cumulus convection parameterization. Atmospheric Chemistry and Physics, 2008, 8, 2811-2832.	4.9	59
226	Season-dependent dynamics of nonlinear optimal error growth and El Niño-Southern Oscillation predictability in a theoretical model. Journal of Geophysical Research, 2007, 112, .	3.3	101
227	Contributions of natural and anthropogenic forcings to the summer cooling over eastern China: An AGCM study. Geophysical Research Letters, 2007, 34, .	4.0	51
228	Tropical cyclone forecasting with model-constrained 3D-Var. II: Improved cyclone track forecasting using AMSU-A, QuikSCAT and cloud-drift wind data. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 155-165.	2.7	6
229	Tropical cyclone forecasting with model-constrained 3D-Var. I: Description. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 147-153.	2.7	3
230	Comparison between GAMIL, and CAM2 on interannual variability simulation. Advances in Atmospheric Sciences, 2007, 24, 82-88.	4.3	5
231	Improvements of a dynamic global vegetation model and simulations of carbon and water at an upland-oak forest. Advances in Atmospheric Sciences, 2007, 24, 311-322.	4.3	9
232	Improvements in climate simulation with modifications to the Tiedtke convective parameterization in the grid-point atmospheric model of IAP LASG (GAMIL). Advances in Atmospheric Sciences, 2007, 24, 323-335.	4.3	42
233	Performance of a reconfigured atmospheric general circulation model at low resolution. Advances in Atmospheric Sciences, 2007, 24, 712-728.	4.3	11
234	Impacts of external forcing on the 20th century global warming. Science Bulletin, 2007, 52, 3148-3154.	1.7	21

#	Article	IF	CITATIONS
235	New multisymplectic self-adjoint scheme and its composition scheme for the time-domain Maxwell's equations. Journal of Mathematical Physics, 2006, 47, 123508.	1.1	16
236	Changes in global monsoon precipitation over the past 56 years. Geophysical Research Letters, 2006, 33,	4.0	249
237	Drought in Late Spring of South China in Recent Decades. Journal of Climate, 2006, 19, 3197-3206.	3.2	191
238	Large-Scale Atmospheric Forcing by Southeast Pacific Boundary Layer Clouds: A Regional Model Study*. Journal of Climate, 2005, 18, 934-951.	3.2	47
239	Why Is There an Early Spring Cooling Shift Downstream of the Tibetan Plateau?. Journal of Climate, 2005, 18, 4660-4668.	3.2	97
240	High-order multi-symplectic schemes for the nonlinear Klein–Gordon equation. Applied Mathematics and Computation, 2005, 166, 608-632.	2.2	26
241	Simulation of tropospheric ozone with MOZART-2: An evaluation study over East Asia. Advances in Atmospheric Sciences, 2005, 22, 585-594.	4.3	4
242	MJO in the NCAR CAM2 with the Tiedtke Convective Scheme*. Journal of Climate, 2005, 18, 3007-3020.	3.2	48
243	Circumglobal Teleconnection in the Northern Hemisphere Summer*. Journal of Climate, 2005, 18, 3483-3505.	3.2	867
244	Improved track forecasting of a typhoon reaching landfall from four-dimensional variational data assimilation of AMSU-A retrieved data. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	27
245	Fundamental challenge in simulation and prediction of summer monsoon rainfall. Geophysical Research Letters, 2005, 32, .	4.0	566
246	An Artificial Boundary Condition for the Multisymplectic Preissman Scheme. Journal of the Physical Society of Japan, 2004, 73, 1457-1463.	1.6	1
247	Structures and Mechanisms of the Northward Propagating Boreal Summer Intraseasonal Oscillation*. Journal of Climate, 2004, 17, 1022-1039.	3.2	462
248	Design of a new dynamical core for global atmospheric models based on some efficient numerical methods. Science in China Series A: Mathematics, 2004, 47, 4.	0.5	102
249	Parallel computing of a variational data assimilation model for GPS/MET observation using the ray-tracing method. Advances in Atmospheric Sciences, 2004, 21, 220-226.	4.3	12
250	Variational data assimilation experiments of mei-yu front rainstorms in China. Advances in Atmospheric Sciences, 2004, 21, 587-596.	4.3	1
251	Numerical implementation of the multisymplectic Preissman scheme and its equivalent schemes. Applied Mathematics and Computation, 2004, 149, 299-326.	2.2	20
252	Tropospheric cooling and summer monsoon weakening trend over East Asia. Geophysical Research Letters, 2004, 31, .	4.0	364

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#	Article	IF	CITATIONS
253	Conditional nonlinear optimal perturbations as the optimal precursors for El Nino-Southern Oscillation events. Journal of Geophysical Research, 2004, 109, .	3.3	108
254	The Boreal-Summer Intraseasonal Oscillations Simulated in a Hybrid Coupled Atmosphere–Ocean Model*. Monthly Weather Review, 2004, 132, 2628-2649.	1.4	95
255	Ensemble Simulations of Asian–Australian Monsoon Variability by 11 AGCMs*. Journal of Climate, 2004, 17, 803-818.	3.2	287
256	Climate Effects of the Deep Continental Stratus Clouds Generated by the Tibetan Plateau. Journal of Climate, 2004, 17, 2702-2713.	3.2	131
257	Differences of Boreal Summer Intraseasonal Oscillations Simulated in an Atmosphere–Ocean Coupled Model and an Atmosphere-Only Model*. Journal of Climate, 2004, 17, 1263-1271.	3.2	143
258	Regional Model Simulations of Marine Boundary Layer Clouds over the Southeast Pacific off South America. Part I: Control Experiment*. Monthly Weather Review, 2004, 132, 274-296.	1.4	80
259	The variational assimilation experiment of GPS bending angle. Advances in Atmospheric Sciences, 2003, 20, 479-486.	4.3	7
260	The relationship between short-range motion of atmosphere and ocean and conservative and nonconservative scheme. Science Bulletin, 2003, 48, 999-1001.	1.7	5
261	Construction and numerical tests of the multi-conservation difference scheme. Science Bulletin, 2003, 48, 1016-1020.	1.7	6
262	Research on Atmospheric Motion in Horizontal Discrete Grids. Advances in Atmospheric Sciences, 2003, 20, 139-148.	4.3	2
263	A Highly Resolved Regional Climate Model (IPRC-RegCM) and Its Simulation of the 1998 Severe Precipitation Event over China. Part I: Model Description and Verification of Simulation*. Journal of Climate, 2003, 16, 1721-1738.	3.2	181
264	High Order Symplectic Schemes for the Sine-Gordon Equation*. Journal of the Physical Society of Japan, 2003, 72, 2731-2736.	1.6	8
265	Interannual Variations of the Boreal Summer Intraseasonal Oscillation in the Asian–Pacific Region*. Journal of Climate, 2003, 16, 3572-3584.	3.2	122
266	Atmosphere–Warm Ocean Interaction and Its Impacts on Asian–Australian Monsoon Variation*. Journal of Climate, 2003, 16, 1195-1211.	3.2	624
267	Coupling between Northward-Propagating, Intraseasonal Oscillations and Sea Surface Temperature in the Indian Ocean*. Journals of the Atmospheric Sciences, 2003, 60, 1733-1753.	1.7	266
268	Construction and numerical tests of the multi-conservation difference scheme. Science Bulletin, 2003, 48, 1016.	1.7	6
269	Rainy Season of the Asian–Pacific Summer Monsoon*. Journal of Climate, 2002, 15, 386-398.	3.2	1,132
270	Pacific–East Asian Teleconnection. Part II: How the Philippine Sea Anomalous Anticyclone is Established during El Niño Development*. Journal of Climate, 2002, 15, 3252-3265.	3.2	372

#	ARTICLE	IF	CITATIONS
271	Simulation of the Intraseasonal Oscillation in the ECHAM-4 Model: The Impact of Coupling with an Ocean Model*. Journals of the Atmospheric Sciences, 2002, 59, 1433-1453.	1.7	143
272	Onset of the Summer Monsoon over the Indochina Peninsula: Climatology and Interannual Variations*. Journal of Climate, 2002, 15, 3206-3221.	3.2	151
273	A comparative analysis of computational stability for linear and non-linear evolution equations. Advances in Atmospheric Sciences, 2002, 19, 699-704.	4.3	15
274	Study on computational properties of several vertical grids with a nonhydrostatic model in comparison to analytical solutions. Advances in Atmospheric Sciences, 2002, 19, 528-543.	4.3	1
275	The Time–Space Structure of the Asian–Pacific Summer Monsoon: A Fast Annual Cycle View*. Journal of Climate, 2002, 15, 2001-2019.	3.2	108
276	Construction of explicit quasi-Complete square conservative difference schemes of forced dissipative nonlinear evolution equations. Advances in Atmospheric Sciences, 2001, 18, 604-612.	4.3	3
277	Computational stability of the explicit difference schemes of the forced dissipative nonlinear evolution equations. Advances in Atmospheric Sciences, 2001, 18, 413-417.	4.3	2
278	Interannual Variability of the Asian Summer Monsoon: Contrasts between the Indian and the Western North Pacific–East Asian Monsoons*. Journal of Climate, 2001, 14, 4073-4090.	3.2	887
279	Initialization and Simulation of a Landfalling Hurricane Using a Variational Bogus Data Assimilation Scheme. Monthly Weather Review, 2000, 128, 2252-2269.	1.4	89
280	Data assimilation and its applications. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 11143-11144.	7.1	61
281	A new method for judging the computational stability of the difference schemes of nonlinear evolution equations. Science Bulletin, 2000, 45, 1358-1361.	1.7	17
282	Pacific–East Asian Teleconnection: How Does ENSO Affect East Asian Climate?. Journal of Climate, 2000, 13, 1517-1536.	3.2	2,340
283	Numerical simulation of an unsaturated flow equation. Science in China Series D: Earth Sciences, 1998, 41, 429-436.	0.9	12
284	Northern Hemisphere Summer Monsoon Singularities and Climatological Intraseasonal Oscillation. Journal of Climate, 1997, 10, 1071-1085.	3.2	217
285	Distinct roles of land cover in regulating spatial variabilities of temperature responses to radiative effects of aerosols and clouds. Environmental Research Letters, 0, , .	5.2	2