

William C Skamarock

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	A Fully Compressible Nonhydrostatic Deep-Atmosphere Equations Solver for MPAS. <i>Monthly Weather Review</i> , 2021, 149, 571-583.	0.5	11
2	An Implicit-Explicit Vertical Transport Scheme for Convection-Allowing Models. <i>Monthly Weather Review</i> , 2020, 148, 3893-3910.	0.5	5
3	Modeling extreme precipitation over East China with a global variable-resolution modeling framework (MPASv5.2): impacts of resolution and physics. <i>Geoscientific Model Development</i> , 2019, 12, 2707-2726.	1.3	25
4	Vertical Resolution Requirements in Atmospheric Simulation. <i>Monthly Weather Review</i> , 2019, 147, 2641-2656.	0.5	31
5	Track Deflection of Typhoon Nesat (2017) as Realized by Multiresolution Simulations of a Global Model. <i>Monthly Weather Review</i> , 2019, 147, 1593-1613.	0.5	12
6	DCMIP2016: the splitting supercell test case. <i>Geoscientific Model Development</i> , 2019, 12, 879-892.	1.3	11
7	Damping Acoustic Modes in Compressible Horizontally Explicit Vertically Implicit (HEVI) and Split-Explicit Time Integration Schemes. <i>Monthly Weather Review</i> , 2018, 146, 1911-1923.	0.5	7
8	Limited-Area Atmospheric Modeling Using an Unstructured Mesh. <i>Monthly Weather Review</i> , 2018, 146, 3445-3460.	0.5	23
9	The Weather Research and Forecasting Model: Overview, System Efforts, and Future Directions. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 1717-1737.	1.7	717
10	Ensemble Kalman Filter Data Assimilation for the Model for Prediction Across Scales (MPAS). <i>Monthly Weather Review</i> , 2017, 145, 4673-4692.	0.5	21
11	Influences of Large-Scale Flow Variations on the Track Evolution of Typhoons Morakot (2009) and Megi (2010): Simulations with a Global Variable-Resolution Model. <i>Monthly Weather Review</i> , 2017, 145, 1691-1716.	0.5	11
12	Spherical Harmonic Spectral Estimation on Arbitrary Grids. <i>Monthly Weather Review</i> , 2017, 145, 3355-3363.	0.5	4
13	DCMIP2016: a review of non-hydrostatic dynamical core design and intercomparison of participating models. <i>Geoscientific Model Development</i> , 2017, 10, 4477-4509.	1.3	58
14	Accuracy of Rotational and Divergent Kinetic Energy Spectra Diagnosed from Flight-Track Winds. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 3273-3286.	0.6	30
15	Spectral Characteristics of Convective-Scale Precipitation Observations and Forecasts. <i>Monthly Weather Review</i> , 2016, 144, 4183-4196.	0.5	17
16	Analyzing the Grell-Freitas Convection Scheme from Hydrostatic to Nonhydrostatic Scales within a Global Model. <i>Monthly Weather Review</i> , 2016, 144, 2285-2306.	0.5	40
17	Evaluating Medium-Range Tropical Cyclone Forecasts in Uniform- and Variable-Resolution Global Models. <i>Monthly Weather Review</i> , 2016, 144, 4141-4160.	0.5	23
18	Exploring the impacts of physics and resolution on aquaplanet simulations from a nonhydrostatic global variable-resolution modeling framework. <i>Journal of Advances in Modeling Earth Systems</i> , 2016, 8, 1751-1768.	1.3	28

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19	Idealized global nonhydrostatic atmospheric test cases on a reduced-radius sphere. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 1155-1177.	1.3	23
20	Modifications to WRF's dynamical core to improve the treatment of moisture for large-eddy simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2015, 7, 1627-1642.	1.3	8
21	Testing of a Cell-Integrated Semi-Lagrangian Semi-Implicit Nonhydrostatic Atmospheric Solver (CSLAM-NH) with Idealized Orography. <i>Monthly Weather Review</i> , 2015, 143, 1382-1398.	0.5	1
22	A Comparison of Mesh Refinement in the Global MPAS-A and WRF Models Using an Idealized Normal-Mode Baroclinic Wave Simulation. <i>Monthly Weather Review</i> , 2014, 142, 3614-3634.	0.5	51
23	A Compressible Nonhydrostatic Cell-Integrated Semi-Lagrangian Semi-Implicit Solver (CSLAM-NH) with Consistent and Conservative Transport. <i>Monthly Weather Review</i> , 2014, 142, 1669-1687.	0.5	3
24	Atmospheric Kinetic Energy Spectra from Global High-Resolution Nonhydrostatic Simulations. <i>Journals of the Atmospheric Sciences</i> , 2014, 71, 4369-4381.	0.6	124
25	A Cell-Integrated Semi-Lagrangian Semi-Implicit Shallow-Water Model (CSLAM-SW) with Conservative and Consistent Transport. <i>Monthly Weather Review</i> , 2013, 141, 2545-2560.	0.5	13
26	Evaluation of Global Atmospheric Solvers Using Extensions of the Jablonowski and Williamson Baroclinic Wave Test Case. <i>Monthly Weather Review</i> , 2013, 141, 3116-3129.	0.5	44
27	An Upwind-Biased Transport Scheme Using a Quadratic Reconstruction on Spherical Icosahedral Grids. <i>Monthly Weather Review</i> , 2013, 141, 832-847.	0.5	13
28	Exploring a Global Multiresolution Modeling Approach Using Aquaplanet Simulations*. <i>Journal of Climate</i> , 2013, 26, 2432-2452.	1.2	67
29	A Multiscale Nonhydrostatic Atmospheric Model Using Centroidal Voronoi Tessellations and C-Grid Staggering. <i>Monthly Weather Review</i> , 2012, 140, 3090-3105.	0.5	405
30	The Global Weather Research and Forecasting (GWRF) Model: Model Evaluation, Sensitivity Study, and Future Year Simulation. <i>Atmospheric and Climate Sciences</i> , 2012, 02, 231-253.	0.1	16
31	Exploring a Multiresolution Modeling Approach within the Shallow-Water Equations. <i>Monthly Weather Review</i> , 2011, 139, 3348-3368.	0.5	86
32	Conservative Transport Schemes for Spherical Geodesic Grids: High-Order Flux Operators for ODE-Based Time Integration. <i>Monthly Weather Review</i> , 2011, 139, 2962-2975.	0.5	76
33	Kinetic Energy Spectra and Model Filters. <i>Lecture Notes in Computational Science and Engineering</i> , 2011, , 495-512.	0.1	12
34	A unified approach to energy conservation and potential vorticity dynamics for arbitrarily-structured C-grids. <i>Journal of Computational Physics</i> , 2010, 229, 3065-3090.	1.9	223
35	Conservative Transport Schemes for Spherical Geodesic Grids: High-Order Reconstructions for Forward-in-Time Schemes. <i>Monthly Weather Review</i> , 2010, 138, 4497-4508.	0.5	24
36	Monotonic Limiters for a Second-Order Finite-Volume Advection Scheme Using Icosahedral-Hexagonal Meshes. <i>Monthly Weather Review</i> , 2010, 138, 4523-4527.	0.5	5

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37	Evaluation of Scalar Advection Schemes in the Advanced Research WRF Model Using Large-Eddy Simulations of Aerosol-Cloud Interactions. <i>Monthly Weather Review</i> , 2009, 137, 2547-2558.	0.5	100
38	The Impact of Positive-Definite Moisture Transport on NWP Precipitation Forecasts. <i>Monthly Weather Review</i> , 2009, 137, 488-494.	0.5	91
39	Numerical representation of geostrophic modes on arbitrarily structured C-grids. <i>Journal of Computational Physics</i> , 2009, 228, 8321-8335.	1.9	171
40	A time-split nonhydrostatic atmospheric model for weather research and forecasting applications. <i>Journal of Computational Physics</i> , 2008, 227, 3465-3485.	1.9	1,789
41	A Linear Analysis of the NCAR CCSM Finite-Volume Dynamical Core. <i>Monthly Weather Review</i> , 2008, 136, 2112-2119.	0.5	20
42	Conservative Split-Explicit Time Integration Methods for the Compressible Nonhydrostatic Equations. <i>Monthly Weather Review</i> , 2007, 135, 2897-2913.	0.5	246
43	Positive-Definite and Monotonic Limiters for Unrestricted-Time-Step Transport Schemes. <i>Monthly Weather Review</i> , 2006, 134, 2241-2250.	0.5	74
44	Fully coupled "online" chemistry within the WRF model. <i>Atmospheric Environment</i> , 2005, 39, 6957-6975.	1.9	2,799
45	Model numerics for convective-storm simulation. , 2004, , 117-138.		3
46	Evaluating Mesoscale NWP Models Using Kinetic Energy Spectra. <i>Monthly Weather Review</i> , 2004, 132, 3019-3032.	0.5	809
47	Numerical Consistency of Metric Terms in Terrain-Following Coordinates. <i>Monthly Weather Review</i> , 2003, 131, 1229-1239.	0.5	63
48	Time-Splitting Methods for Elastic Models Using Forward Time Schemes. <i>Monthly Weather Review</i> , 2002, 130, 2088-2097.	0.5	701
49	Catalina Eddies and Coastally Trapped Disturbances. <i>Journals of the Atmospheric Sciences</i> , 2002, 59, 2270-2278.	0.6	12
50	Coastally Trapped Wind Reversals: Progress toward Understanding. <i>Bulletin of the American Meteorological Society</i> , 2000, 81, 719-743.	1.7	48
51	Numerical simulations of the July 10 Stratospheric-Tropospheric Experiment: Radiation, Aerosols, and Ozone/Deep Convection Experiment convective system: Kinematics and transport. <i>Journal of Geophysical Research</i> , 2000, 105, 19973-19990.	3.3	52
52	Models of Coastally Trapped Disturbances. <i>Journals of the Atmospheric Sciences</i> , 1999, 56, 3349-3365.	0.6	28
53	A Time-Splitting Scheme for the Elastic Equations Incorporating Second-Order Runge-Kutta Time Differencing. <i>Monthly Weather Review</i> , 1998, 126, 1992-1999.	0.5	125
54	Effects of Surface Drag on Fronts within Numerically Simulated Baroclinic Waves. <i>Journals of the Atmospheric Sciences</i> , 1998, 55, 2119-2129.	0.6	19

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55	Effect of Three-Dimensional Structure on the Stormwide Horizontal Accelerations and Momentum Budget of a Simulated Squall Line. <i>Monthly Weather Review</i> , 1998, 126, 2580-2598.	0.5	17
56	Preconditioned Conjugate-Residual Solvers for Helmholtz Equations in Nonhydrostatic Models. <i>Monthly Weather Review</i> , 1997, 125, 587-599.	0.5	68
57	The Resolution Dependence of Explicitly Modeled Convective Systems. <i>Monthly Weather Review</i> , 1997, 125, 527-548.	0.5	560
58	On the propagation of internal bores. <i>Journal of Fluid Mechanics</i> , 1997, 331, 81-106.	1.4	106
59	Structure and Evolution of the 22 February 1993 TOGA COARE Squall Line: Organization Mechanisms Inferred from Numerical Simulation. <i>Journals of the Atmospheric Sciences</i> , 1997, 54, 386-407.	0.6	76
60	The Diffraction of Kelvin Waves and Bores at Coastal Bends. <i>Journals of the Atmospheric Sciences</i> , 1996, 53, 1327-1338.	0.6	9
61	On the dynamics of gravity currents in a channel. <i>Journal of Fluid Mechanics</i> , 1994, 269, 169-198.	1.4	125
62	An Analysis of Frontogenesis in Numerical Simulations of Baroclinic Waves. <i>Journals of the Atmospheric Sciences</i> , 1994, 51, 3373-3398.	0.6	97
63	Efficiency and Accuracy of the Klemp-Wilhelmson Time-Splitting Technique. <i>Monthly Weather Review</i> , 1994, 122, 2623-2630.	0.5	111
64	Three-Dimensional Evolution of Simulated Long-Lived Squall Lines. <i>Journals of the Atmospheric Sciences</i> , 1994, 51, 2563-2584.	0.6	168
65	Frontal Dynamics near and following Frontal Collapse. <i>Journals of the Atmospheric Sciences</i> , 1993, 50, 3194-3212.	0.6	122
66	Adaptive Grid Refinement for Two-Dimensional and Three-Dimensional Nonhydrostatic Atmospheric Flow. <i>Monthly Weather Review</i> , 1993, 121, 788-804.	0.5	100
67	The Stability of Time-Split Numerical Methods for the Hydrostatic and the Nonhydrostatic Elastic Equations. <i>Monthly Weather Review</i> , 1992, 120, 2109-2127.	0.5	206
68	A Comparison of Primitive-Equation and Semigeostrophic Simulations of Baroclinic Waves. <i>Journals of the Atmospheric Sciences</i> , 1991, 48, 2179-2194.	0.6	68
69	Adaptive grid refinement for numerical weather prediction. <i>Journal of Computational Physics</i> , 1989, 80, 27-60.	1.9	80
70	Shore Line Effects on Mixing of a Tee Diffuser. <i>Journal of Hydraulic Engineering</i> , 1982, 108, 1232-1238.	0.2	4
71	Effect of the Grell-Freitas Deep Convection Scheme in Quasi-Uniform and Variable-Resolution Aquaplanet CAM Simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 0, , .	1.3	1