Craig H Bishop

List of Publications by Year
in descending order

93	5,858	109321	74163
papers	citations	35 h-index	75 g-index

97	97	97	3011
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Adaptive Sampling with the Ensemble Transform Kalman Filter. Part I: Theoretical Aspects. Monthly Weather Review, 2001, 129, 420-436.	1.4	1,009
2	Ensemble Square Root Filters*. Monthly Weather Review, 2003, 131, 1485-1490.	1.4	646
3	The THORPEX Interactive Grand Global Ensemble. Bulletin of the American Meteorological Society, 2010, 91, 1059-1072.	3.3	335
4	A Comparison of Breeding and Ensemble Transform Kalman Filter Ensemble Forecast Schemes. Journals of the Atmospheric Sciences, 2003, 60, 1140-1158.	1.7	324
5	Cloud-Resolving Hurricane Initialization and Prediction through Assimilation of Doppler Radar Observations with an Ensemble Kalman Filter. Monthly Weather Review, 2009, 137, 2105-2125.	1.4	307
6	Ensemble Transformation and Adaptive Observations. Journals of the Atmospheric Sciences, 1999, 56, 1748-1765.	1.7	231
7	Which Is Better, an Ensemble of Positiveâ€“Negative Pairs or a Centered Spherical Simplex Ensemble?. Monthly Weather Review, 2004, 132, 1590-1605.	1.4	174
8	Climate model dependence and the replicate Earth paradigm. Climate Dynamics, 2013, 41, 885-900.	3.8	142
9	The Effect of Targeted Dropsonde Observations during the 1999 Winter Storm Reconnaissance Program. Monthly Weather Review, 2000, 128, 3520-3537.	1.4	117
10	Comparison of Hybrid Ensemble/4DVar and 4DVar within the NAVDAS-AR Data Assimilation Framework. Monthly Weather Review, 2013, 141, 2740-2758.	1.4	115
11	A Comparison of Hybrid Ensemble Transform Kalman Filterâ€“Optimum Interpolation and Ensemble Square Root Filter Analysis Schemes. Monthly Weather Review, 2007, 135, 1055-1076.	1.4	110
12	Adaptive Sampling with the Ensemble Transform Kalman Filter. Part II: Field Program Implementation. Monthly Weather Review, 2002, 130, 1356-1369.	1.4	100
13	Ensemble covariances adaptively localized with ECO-RAP. Part 1: tests on simple error models. Tellus, Series A: Dynamic Meteorology and Oceanography, 2009, 61, 84-96.	1.7	100
14	Flowâ€adaptive moderation of spurious ensemble correlations and its use in ensembleâ€based data assimilation. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 2029-2044.	2.7	97
15	Improvement of ensemble reliability with a new dressing kernel. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 965-986.	2.7	92
16	Vertical Covariance Localization for Satellite Radiances in Ensemble Kalman Filters. Monthly Weather Review, 2010, 138, 282-290.	1.4	90
17	Ensemble covariances adaptively localized with ECO-RAP. Part 2: a strategy for the atmosphere. Tellus, Series A: Dynamic Meteorology and Oceanography, 2009, 61, 97-111.	1.7	86
18	Ensemble Transform Kalman Filter-based ensemble perturbations in an operational global prediction system at NCEP. Tellus, Series A: Dynamic Meteorology and Oceanography, 2006, 58, 28-44.	1.7	83

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19	A Comparison of Adaptive Observing Guidance for Atlantic Tropical Cyclones. Monthly Weather Review, 2006, 134, 2354-2372.	1.4	82
20	Resilience of Hybrid Ensemble/3DVAR Analysis Schemes to Model Error and Ensemble Covariance Error. Monthly Weather Review, 2004, 132, 1065-1080.	1.4	76
21	Potential vorticity and the electrostatics analogy: Quasi-geostrophic theory. Quarterly Journal of the Royal Meteorological Society, 1994, 120, 713-731.	2.7	70
22	Evaluation of the Ensemble Transform Analysis Perturbation Scheme at NRL. Monthly Weather Review, 2008, 136, 1093-1108.	1.4	62
23	Counter-propagating Rossby waves in the barotropic Rayleigh model of shearinstability. Quarterly Journal of the Royal Meteorological Society, 1999, 125, 2835-2853.	2.7	60
24	Climate Model Dependence and the Ensemble Dependence Transformation of CMIP Projections. Journal of Climate, 2015, 28, 2332-2348.	3.2	55
25	Adaptive Ensemble Covariance Localization in Ensemble 4D-VAR State Estimation. Monthly Weather Review, 2011, 139, 1241-1255.	1.4	54
26	Nonlinear Parameter Estimation: Comparison of an Ensemble Kalman Smoother with a Markov Chain Monte Carlo Algorithm. Monthly Weather Review, 2012, 140, 1957-1974.	1.4	54
27	Frontal Wave Stability during Moist Deformation Frontogenesis. Part II: The Suppression of Nonlinear Wave Development. Journals of the Atmospheric Sciences, 1994, 51, 874-888.	1.7	45
28	A Comparison of the Hybrid and EnSRF Analysis Schemes in the Presence of Model Errors due to Unresolved Scales. Monthly Weather Review, 2009, 137, 3219-3232.	1.4	45
29	Can an ensemble transform Kalman filter predict the reduction in forecast-error variance produced by targeted observations?. Quarterly Journal of the Royal Meteorological Society, 2001, 127, 2803-2820.	2.7	42
30	Frontal Wave Stability during Moist Deformation Frontogenesis. Part I: Linear Wave Dynamics. Journals of the Atmospheric Sciences, 1994, 51, 852-873.	1.7	40
31	A Local Formulation of the Ensemble Transform (ET) Analysis Perturbation Scheme. Weather and Forecasting, 2010, 25, 985-993.	1.4	40
32	The GIGGâ€ŁEnKF: ensemble Kalman filtering for highly skewed nonâ€negative uncertainty distributions. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 1395-1412.	2.7	40
33	Improving Assimilation of Radiance Observations by Implementing Model Space Localization in an Ensemble Kalman Filter. Journal of Advances in Modeling Earth Systems, 2018, 10, 3221-3232.	3.8	40
34	The role of the environmental flow in the development of secondary frontal cyclones. Quarterly Journal of the Royal Meteorological Society, 1997, 123, 1653-1675.	2.7	39
35	Facilitating Strongly Coupled Oceanâ€“Atmosphere Data Assimilation with an Interface Solver. Monthly Weather Review, 2016, 144, 3-20.	1.4	38
36	The benefits of correlated observation errors for small scales. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 3439-3445.	2.7	37

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37	The Role of Diffusive Effects On Potential Vorticity In Fronts. Quarterly Journal of the Royal Meteorological Society, 1992, 118, 629-647.	2.7	36
38	Potential vorticity and the electrostatics analogy: Ertelâ€"Rossby formulation. Quarterly Journal of the Royal Meteorological Society, 1995, 121, 1477-1495.	2.7	35
39	The Value of Hurricane Forecasts to Oil and Gas Producers in the Gulf of Mexico. Journal of Applied Meteorology and Climatology, 2004, 43, 1270-1281.	1.7	34
40	Errors in Ensemble Kalman Smoother Estimates of Cloud Microphysical Parameters. Monthly Weather Review, 2014, 142, 1631-1654.	1.4	34
41	Interpretation of Adaptive Observing Guidance for Atlantic Tropical Cyclones. Monthly Weather Review, 2007, 135, 4006-4029.	1.4	31
42	The counter-propagating Rossby-wave perspective on baroclinic instability. II: Application to the Charney model. Quarterly Journal of the Royal Meteorological Society, 2004, 130, 233-258.	2.7	30
43	Efficient Ensemble Covariance Localization in Variational Data Assimilation. Monthly Weather Review, 2011, 139, 573-580.	1.4	30
44	Gain Form of the Ensemble Transform Kalman Filter and Its Relevance to Satellite Data Assimilation with Model Space Ensemble Covariance Localization. Monthly Weather Review, 2017, 145, 4575-4592.	1.4	29
45	Hidden Error Variance Theory. Part I: Exposition and Analytic Model. Monthly Weather Review, 2013, 141, 1454-1468.	1.4	27
46	Bayesian Model Averagingâ€™s Problematic Treatment of Extreme Weather and a Paradigm Shift That Fixes It. Monthly Weather Review, 2008, 136, 4641-4652.	1.4	26
47	The ensemble-transform scheme adapted for the generation of stochastic forecast perturbations. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 1257-1266.	2.7	23
48	The Navy's Earth System Prediction Capability: A New Global Coupled Atmosphereâ€Oceanâ€Sea Ice Prediction System Designed for Daily to Subseasonal Forecasting. Earth and Space Science, 2021, 8, e2020EA001199.	2.6	23
49	Development and testing of a coupled oceanâ€"atmosphere mesoscale ensemble prediction system. Ocean Dynamics, 2011, 61, 1937-1954.	2.2	22
50	The Local Ensemble Tangent Linear Model: an enabler for coupled model <scp>4Dâ€Var</scp>. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 1009-1020.	2.7	22
51	Urban and ocean ensembles for improved meteorological and dispersion modelling of the coastal zone. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 61, 232.	1.7	21
52	Uncertainty in atmospheric temperature analyses. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, 60, 598-603.	1.7	20
53	Domain-Independent Attribution. Part I: Reconstructing the Wind from Estimates of Vorticity and Divergence Using Free Space Green's Functions. Journals of the Atmospheric Sciences, 1996, 53, 241-252.	1.7	19
54	Regional Ensemble Forecasts Using the Ensemble Transform Technique. Monthly Weather Review, 2009, 137, 288-298.	1.4	18

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55	Domain-Independent Attribution. Part II: Its Value in the Verification of Dynamical Theories of Frontal Waves and Frontogenesis. Journals of the Atmospheric Sciences, 1996, 53, 253-262.	1.7	17
56	Nonmodal Development of Baroclinic Waves Undergoing Horizontal Shear Deformation*. Journals of the Atmospheric Sciences, 1998, 55, 3583-3597.	1.7	16
57	Numerical Simulations of an Observed Narrow Cold-Frontal Rainband. Monthly Weather Review, 1997, 125, 1027-1045.	1.4	15
58	A Statistical Investigation of the Sensitivity of Ensemble-Based Kalman Filters to Covariance Filtering. Monthly Weather Review, 2011, 139, 3036-3051.	1.4	15
59	Localized Ensemble-Based Tangent Linear Models and Their Use in Propagating Hybrid Error Covariance Models. Monthly Weather Review, 2016, 144, 1383-1405.	1.4	15
60	Apparent Absolute Instability and the Continuous Spectrum. Journals of the Atmospheric Sciences, 2000, 57, 3592-3608.	1.7	14
61	Optimization of the Fixed Global Observing Network in a Simple Model. Journals of the Atmospheric Sciences, 2003, 60, 1471-1489.	1.7	13
62	Does the Surface Pressure Equal the Weight per Unit Area of a Hydrostatic Atmosphere?. Bulletin of the American Meteorological Society, 1997, 78, 2637-2642.	3.3	12
63	Nonlinear data assimilation for clouds and precipitation using a gamma inverseâ€gamma ensemble filter. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 2331-2349.	2.7	12
64	Using Analysis Corrections to Address Model Error in Atmospheric Forecasts. Monthly Weather Review, 2020, 148, 3729-3745.	1.4	12
65	Investigating the Use of Ensemble Variance to Predict Observation Error of Representation. Monthly Weather Review, 2017, 145, 653-667.	1.4	11
66	Observations in Aid of Weather Prediction for North America: Report of Prospectus Development Team Seven. Bulletin of the American Meteorological Society, 1997, 78, 2859-2868.	3.3	10
67	Verification region selection and data assimilation for adaptive sampling. Quarterly Journal of the Royal Meteorological Society, 2006, 132, 915-933.	2.7	10
68	Hidden Error Variance Theory. Part II: An Instrument That Reveals Hidden Error Variance Distributions from Ensemble Forecasts and Observations. Monthly Weather Review, 2013, 141, 1469-1483.	1.4	10
69	A Nonvariational Consistent Hybrid Ensemble Filter. Monthly Weather Review, 2015, 143, 5073-5090.	1.4	10
70	First Application of the Local Ensemble Tangent Linear Model (LETLM) to a Realistic Model of the Global Atmosphere. Monthly Weather Review, 2018, 146, 2247-2270.	1.4	10
71	Data assimilation strategies for stateâ€dependent observation error variances. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 217-227.	2.7	10
72	On the behaviour of baroclinic waves undergoing horizontal deformation. I : The <I>'RT'</I> phase diagram. Quarterly Journal of the Royal Meteorological Society, 1993, 119, 221-240.	2.7	9

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73	Hybrid 4DVAR with a Local Ensemble Tangent Linear Model: Application to the Shallow-Water Model. Monthly Weather Review, 2017, 145, 97-116.	1.4	8
74	The High-Rank Ensemble Transform Kalman Filter. Monthly Weather Review, 2019, 147, 3025-3043.	1.4	8
75	On the behaviour of baroclinic waves undergoing horizontal deformation. II: Error-bound amplification and Rossby wave diagnostics. Quarterly Journal of the Royal Meteorological Society, 1993, 119, 241-267.	2.7	7
76	Ensemble clustering in deterministic ensemble Kalman filters. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 64, 18039.	1.7	7
77	Observation-Informed Generalized Hybrid Error Covariance Models. Monthly Weather Review, 2018, 146, 3605-3622.	1.4	7
78	Development of a Mesoscale Ensemble Data Assimilation System at the Naval Research Laboratory. Weather and Forecasting, 2013, 28, 1322-1336.	1.4	6
79	Heteroscedastic Ensemble Postprocessing. Monthly Weather Review, 2014, 142, 3484-3502.	1.4	6
80	A composite state method for ensemble data assimilation with multiple limited-area models. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 67, 26495.	1.7	5
81	Impacts of Sea Surface Temperature Uncertainty on the Western North Pacific Subtropical High (WNPSH) and Rainfall. Weather and Forecasting, 2011, 26, 371-387.	1.4	4
82	Using Forecast Temporal Variability to Evaluate Model Behavior. Monthly Weather Review, 2015, 143, 4785-4804.	1.4	3
83	To what extent is your data assimilation scheme designed to find the posterior mean, the posterior mode or something else?. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 68, 30625.	1.7	3
84	Assimilation of Low-Peaking Satellite Observations Using the Coupled Interface Framework. Monthly Weather Review, 2020, 148, 637-654.	1.4	3
85	The semi-geostrophic Eady problem as a testbed for numerical simulations of frontogenesis. Tellus, Series A: Dynamic Meteorology and Oceanography, 1990, 42, 202-207.	1.7	2
86	Empirical determination of the covariance of forecast errors: An empirical justification and reformulation of hybrid covariance models. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 2033-2052.	2.7	2
87	Implementing Hybrid Background Error Covariance into the LETKF with Attenuation-Based Localization: Experiments with a Simplified AGCM. Monthly Weather Review, 2022, 150, 283-302.	1.4	2
88	Challenges of Increased Resolution for the Local Ensemble Tangent Linear Model. Monthly Weather Review, 2020, 148, 2549-2566.	1.4	1
89	Commentary: On the Efficiency of Covariance Localisation of the Ensemble Kalman Filter Using Augmented Ensembles. Frontiers in Applied Mathematics and Statistics, 2020, 6, .	1.3	1
90	Multi-scale Predictability of High-Impact Weather in the Battlespace Environment. , 2008, , .		0

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91	Regionally Enhanced Global (REG) 4D-Var. Monthly Weather Review, 2018, 146, 4015-4038.	1.4	0
92	Surface Radiative Flux Bias Reduction Through Regionally Varying Cloud Fraction Parameter Nudging in a Global Coupled Forecast System. Journal of Advances in Modeling Earth Systems, 2021, 13, e2019MS002006.	3.8	0
93	Ocean Ensemble Forecasting and Adaptive Sampling. , 2013, , 391-409.		0