Sarah Dance

List of Publications by Year
in descending order

63 papers	2,029 citations	279798 23 h-index	265206 42 g-index
78 all docs	78 docs citations	78 times ranked	2078 citing authors

#	Article	IF	Citations
1	Data assimilation with correlated observation errors: experiments with a 1-D shallow water model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 65, 19546.	1.7	71
2	Estimating correlated observation error statistics using an ensemble transform Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 66, 23294.	1.7	30
3	Accounting for observation uncertainty and bias due to unresolved scales with the Schmidt-Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 72, 1831830.	1.7	5
4	Improving the condition number of estimated covariance matrices. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 72, 1696646.	1.7	13
5	New bounds on the condition number of the Hessian of the preconditioned variational data assimilation problem. Numerical Linear Algebra With Applications, 2022, 29, e2405.	1.6	3
6	Exploring the characteristics of a vehicleâ€based temperature dataset for kilometreâ€scale data assimilation. Meteorological Applications, 2022, 29, .	2.1	2
7	Evaluating the impact of post-processing medium-range ensemble streamflow forecasts from the European Flood Awareness System. Hydrology and Earth System Sciences, 2022, 26, 2939-2968.	4.9	8
8	Spatial scale evaluation of forecast flood inundation maps. Journal of Hydrology, 2022, 612, 128170.	5.4	4
9	The Role of Digital Technologies in Responding to the Grand Challenges of the Natural Environment: The Windermere Accord. Patterns, 2021, 2, 100156.	5.9	6
10	Floodwater detection in urban areas using Sentinel-1 and WorldDEM data. Journal of Applied Remote Sensing, 2021, 15, .	1.3	32
11	Comparing diagnosed observation uncertainties with independent estimates: A case study using aircraftâ€based observations and a convectionâ€permitting data assimilation system. Atmospheric Science Letters, 2021, 22, el01029.	1.9	2
12	Evaluating errors due to unresolved scales in convectionâ€permitting numerical weather prediction. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 2657-2669.	2.7	4
13	Improving Urban Flood Mapping by Merging Synthetic Aperture Radar-Derived Flood Footprints with Flood Hazard Maps. Water (Switzerland), 2021, 13, 1577.	2.7	16
14	Deep learning for automated river-level monitoring through river-camera images: an approach based on water segmentation and transfer learning. Hydrology and Earth System Sciences, 2021, 25, 4435-4453.	4.9	25
15	Automated Water Segmentation and River Level Detection on Camera Images Using Transfer Learning. Lecture Notes in Computer Science, 2021, , 232-245.	1.3	4
16	Collection and extraction of water level information from a digital river camera image dataset. Data in Brief, 2020, 33, 106338.	1.0	8
17	The impact of using reconditioned correlated observationâ€error covariance matrices in the Met Office 1Dâ€Var system. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1372-1390.	2.7	8
18	Observation Error Statistics for Doppler Radar Radial Wind Superobservations Assimilated into the DWD COSMO-KENDA System. Monthly Weather Review, 2019, 147, 3351-3364.	1.4	14

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19	Observation operators for assimilation of satellite observations in fluvial inundation forecasting. Hydrology and Earth System Sciences, 2019, 23, 2541-2559.	4.9	21
20	A pragmatic strategy for implementing spatially correlated observation errors in an operational system: An application to Doppler radial winds. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 2772-2790.	2.7	23
21	Collecting and utilising crowdsourced data for numerical weather prediction: Propositions from the meeting held in Copenhagen, 4â€"5 December 2018. Atmospheric Science Letters, 2019, 20, e921.	1.9	22
22	Towards operational use of aircraftâ€derived observations: a case study at London Heathrow airport. Meteorological Applications, 2019, 26, 542-555.	2.1	3
23	Improvements in Forecasting Intense Rainfall: Results from the FRANC (Forecasting Rainfall Exploiting) Tj ETQq1 1 0.784314 rgBT /Ove 10, 125.	2.3	21
24	The conditioning of leastâ€squares problems in variational data assimilation. Numerical Linear Algebra With Applications, 2018, 25, e2165.	1.6	18
25	On the interaction of observation and prior error correlations in data assimilation. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 48-62.	2.7	35
26	On the representation error in data assimilation. Quarterly Journal of the Royal Meteorological Society, 2018, 144, 1257-1278.	2.7	202
27	Technical note: Assessment of observation quality for data assimilation in flood models. Hydrology and Earth System Sciences, 2018, 22, 3983-3992.	4.9	10
28	Observation impact, domain length and parameter estimation in data assimilation for flood forecasting. Environmental Modelling and Software, 2018, 104, 199-214.	4.5	20
29	Robust algorithm for detecting floodwater in urban areas using synthetic aperture radar images. Journal of Applied Remote Sensing, 2018, 12, 1.	1.3	25
30	Understanding the effect of disturbance from selective felling on the carbon dynamics of a managed woodland by combining observations with model predictions. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 886-902.	3.0	12
31	Diagnosing atmospheric motion vector observation errors for an operational highâ€resolution data assimilation system. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 333-341.	2.7	51
32	On diagnosing observationâ€error statistics with local ensemble data assimilation. Quarterly Journal of the Royal Meteorological Society, 2017, 143, 2677-2686.	2.7	22
33	Diagnosing Horizontal and Inter-Channel Observation Error Correlations for SEVIRI Observations Using Observation-Minus-Background and Observation-Minus-Analysis Statistics. Remote Sensing, 2016, 8, 581.	4.0	50
34	Comparison of aircraftâ€derived observations with in situ research aircraft measurements. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 2949-2967.	2.7	15
35	Diagnosing Observation Error Correlations for Doppler Radar Radial Winds in the Met Office UKV Model Using Observation-Minus-Background and Observation-Minus-Analysis Statistics. Monthly Weather Review, 2016, 144, 3533-3551.	1.4	61
36	Theoretical insight into diagnosing observation error correlations using observationâ€minusâ€background and observationâ€minusâ€analysis statistics. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 418-431.	2.7	72

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37	Investigating the role of prior and observation error correlations in improving a model forecast of forest carbon balance using Four-dimensional Variational data assimilation. Agricultural and Forest Meteorology, 2016, 228-229, 299-314.	4.8	20
38	Evidence of a topographic signal in surface soil moisture derived from ENVISAT ASAR wide swath data. International Journal of Applied Earth Observation and Geoinformation, 2016, 45, 178-186.	2.8	14
39	The potential of flood forecasting using a variable-resolution global Digital Terrain Model and flood extents from Synthetic Aperture Radar images. Frontiers in Earth Science, 2015, 3, .	1.8	15
40	Satellite-supported flood forecasting in river networks: A real case study. Journal of Hydrology, 2015, 523, 706-724.	5.4	88
41	Estimating interchannel observationâ€error correlations for <scp>IASI</scp> radiance data in the Met Office systemâ€. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1236-1244.	2.7	63
42	Representativity error for temperature and humidity using the Met Office highâ€resolution modelâ€. Quarterly Journal of the Royal Meteorological Society, 2014, 140, 1189-1197.	2.7	49
43	Data assimilation for state and parameter estimation: application to morphodynamic modelling. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 314-327.	2.7	40
44	Scheduling satellite-based SAR acquisition for sequential assimilation of water level observations into flood modelling. Journal of Hydrology, 2013, 495, 252-266.	5.4	97
45	Integration of a 3D variational data assimilation scheme with a coastal area morphodynamic model of Morecambe Bay. Coastal Engineering, 2012, 69, 82-96.	4.0	13
46	A hybrid data assimilation scheme for model parameter estimation: Application to morphodynamic modelling. Computers and Fluids, 2011, 46, 436-441.	2.5	18
47	Four-dimensional variational data assimilation for high resolution nested models. Computers and Fluids, 2011, 46, 137-141.	2.5	7
48	State estimation using the particle filter with mode tracking. Computers and Fluids, 2011, 46, 392-397.	2.5	5
49	3D-Var Assimilation of Insect-Derived Doppler Radar Radial Winds in Convective Cases Using a High-Resolution Model. Monthly Weather Review, 2011, 139, 1148-1163.	1.4	33
50	Remote sensing of intertidal morphological change in Morecambe Bay, U.K., between 1991 and 2007. Estuarine, Coastal and Shelf Science, 2010, 87, 487-496.	2.1	69
51	The accuracy of Doppler radar wind retrievals using insects as targets. Meteorological Applications, 2010, 17, 419-432.	2.1	19
52	Ensembleâ€based data assimilation and the localisation problem. Weather, 2010, 65, 65-69.	0.7	21
53	Variational data assimilation for parameter estimation: application to a simple morphodynamic model. Ocean Dynamics, 2009, 59, 697-708.	2.2	23
54	Estimating surface CO&lt;sub&gt;2&lt;/sub&gt; fluxes from space-borne CO&lt;sub&gt;2&lt;/sub&gt; dry air mole fraction observations using an ensemble Kalman Filter. Atmospheric Chemistry and Physics, 2009, 9, 2619-2633.	4.9	148

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55	DATA ASSIMILATION FOR MORPHODYNAMIC PREDICTION AND PREDICTABILITY. , 2009, , .		1
56	Correlated observation errors in data assimilation. International Journal for Numerical Methods in Fluids, 2008, 56, 1521-1527.	1.6	79
57	Unbiased ensemble square root filters. Physica D: Nonlinear Phenomena, 2008, 237, 1021-1028.	2.8	101
58	Unbiased ensemble square root filters. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1026505-1026506.	0.2	0
59	Collision barrier effects on the bulk flow in a random suspension. Physics of Fluids, 2004, 16, 828-831.	4.0	32
60	Issues in high resolution limited area data assimilation for quantitative precipitation forecasting. Physica D: Nonlinear Phenomena, 2004, 196, 1-27.	2.8	25
61	Incorporation of lubrication effects into the force-coupling method for particulate two-phase flow. Journal of Computational Physics, 2003, 189, 212-238.	3.8	94
62	Particle density stratification in transient sedimentation. Physical Review E, 2003, 68, 031403.	2.1	10
63	Efficient computation of matrixâ€vector products with full observation weighting matrices in data assimilation. Quarterly Journal of the Royal Meteorological Society, 0, , .	2.7	2