Youngsun Jung

List of Publications by Year
in descending order

48 papers	1,669 citations	331670 21 h-index	289244 40 g-index
48 all docs	48 docs citations	48 times ranked	750 citing authors

#	Article	IF	Citations
1	Use of Power Transform Total Number Concentration as Control Variable for Direct Assimilation of Radar Reflectivity in GSI En3DVar and Tests with Six Convective Storms Cases. Monthly Weather Review, 2022, 150, 821-842.	1.4	1
2	Use of a Reflectivity Operator Based on Double-Moment Thompson Microphysics for Direct Assimilation of Radar Reflectivity in GSI-Based Hybrid En3DVar. Monthly Weather Review, 2022, 150, 907-926.	1.4	2
3	Object-based Verification of GSIÂEnKF and Hybrid En3DVar Radar Data Assimilation and Convection-Allowing Forecasts within a Warn-on-Forecast Framework. Weather and Forecasting, 2022, , .	1.4	5
4	Development and evaluation of an advanced National Air Quality Forecasting Capability using the NOAA Global Forecast System version 16. Geoscientific Model Development, 2022, 15, 3281-3313.	3.6	8
5	Comparisons of Hybrid En3DVar with 3DVar and EnKF for Radar Data Assimilation: Tests with the 10 May 2010 Oklahoma Tornado Outbreak. Monthly Weather Review, 2021, 149, 21-40.	1.4	7
6	Evaluating Forecast Performance and Sensitivity to the GSI EnKF Data Assimilation Configuration for the 28â€“29 May 2017 Mesoscale Convective System Case. Weather and Forecasting, 2021, 36, 127-146.	1.4	4
7	The Impact of Assimilating ZDR Observations on Storm-Scale Ensemble Forecasts of the 31 May 2013 Oklahoma Storm Event. Monthly Weather Review, 2021, , .	1.4	2
8	Use of Power Transform Mixing Ratios as Hydrometeor Control Variables for Direct Assimilation of Radar Reflectivity in GSI En3DVar and Tests with Five Convective Storm Cases. Monthly Weather Review, 2021, 149, 645-659.	1.4	8
9	Towards the Next Generation Operational Meteorological Radar. Bulletin of the American Meteorological Society, 2021, 102, E1357-E1383.	3.3	21
10	Optimal Temporal Frequency of NSSL Phased Array Radar Observations for an Experimental Warn-on-Forecast System. Weather and Forecasting, 2020, 35, 193-214.	1.4	15
11	Direct Assimilation of Radar Data With Ensemble Kalman Filter and Hybrid Ensembleâ€Variational Method in the National Weather Service Operational Data Assimilation System GSI for the Standâ€Alone Regional FV3 Model at a Convectionâ€Allowing Resolution. Geophysical Research Letters, 2020, 47, e2020GL090179.	4.0	12
12	Assimilation of GOES-R Geostationary Lightning Mapper Flash Extent Density Data in GSI EnKF for the Analysis and Short-Term Forecast of a Mesoscale Convective System. Monthly Weather Review, 2020, 148, 2111-2133.	1.4	21
13	Assimilating polarimetric radar data with an ensemble Kalman filter: OSSEs with a tornadic supercell storm simulated with a twoâ€moment microphysics scheme. Quarterly Journal of the Royal Meteorological Society, 2020, 146, 1880-1900.	2.7	10
14	Evaluating Ensemble Kalman Filter Analyses of Severe Hailstorms on 8 May 2017 in Colorado: Effects of State Variable Updating and Multimoment Microphysics Schemes on State Variable Cross Covariances. Monthly Weather Review, 2020, 148, 2365-2389.	1.4	6
15	Ensemble Kalman Filter Assimilation of Polarimetric Radar Observations for the 20 May 2013 Oklahoma Tornadic Supercell Case. Monthly Weather Review, 2019, 147, 2511-2533.	1.4	26
16	Effects of the Representation of Rimed Ice in Bulk Microphysics Schemes on Polarimetric Signatures. Monthly Weather Review, 2019, 147, 3785-3810.	1.4	7
17	Tornado-Resolving Ensemble and Probabilistic Predictions of the 20 May 2013 Newcastleâ€“Moore EF5 Tornado. Monthly Weather Review, 2019, 147, 1215-1235.	1.4	16
18	Current Status and Future Challenges of Weather Radar Polarimetry: Bridging the Gap between Radar Meteorology/Hydrology/Engineering and Numerical Weather Prediction. Advances in Atmospheric Sciences, 2019, 36, 571-588.	4.3	46

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19	How Well Does an FV3â€Based Model Predict Precipitation at a Convectionâ€Allowing Resolution? Results From CAPS Forecasts for the 2018 NOAA Hazardous Weather Test Bed With Different Physics Combinations. Geophysical Research Letters, 2019, 46, 3523-3531.	4.0	10
20	Explicit Ensemble Prediction of Hail in 19 May 2013 Oklahoma City Thunderstorms and Analysis of Hail Growth Processes with Several Multimoment Microphysics Schemes. Monthly Weather Review, 2019, 147, 1193-1213.	1.4	15
21	The Relationship between Tropical Cyclone Rainfall Area and Environmental Conditions over the Subtropical Oceans. Journal of Climate, 2018, 31, 4605-4616.	3.2	23
22	The Community Leveraged Unified Ensemble (CLUE) in the 2016 NOAA/Hazardous Weather Testbed Spring Forecasting Experiment. Bulletin of the American Meteorological Society, 2018, 99, 1433-1448.	3.3	60
23	Evaluation of Unified Model Microphysics in High-resolution NWP Simulations Using Polarimetric Radar Observations. Advances in Atmospheric Sciences, 2018, 35, 771-784.	4.3	10
24	Ensemble Probabilistic Prediction of a Mesoscale Convective System and Associated Polarimetric Radar Variables Using Single-Moment and Double-Moment Microphysics Schemes and EnKF Radar Data Assimilation. Monthly Weather Review, 2017, 145, 2257-2279.	1.4	21
25	Simulation of Polarimetric Radar Variables from 2013 CAPS Spring Experiment Storm-Scale Ensemble Forecasts and Evaluation of Microphysics Schemes. Monthly Weather Review, 2017, 145, 49-73.	1.4	40
26	Ensemble Hail Prediction for the Storms of 10 May 2010 in South-Central Oklahoma Using Single- and Double-Moment Microphysical Schemes. Monthly Weather Review, 2017, 145, 4911-4936.	1.4	21
27	Breaking New Ground in Severe Weather Prediction: The 2015 NOAA/Hazardous Weather Testbed Spring Forecasting Experiment. Weather and Forecasting, 2017, 32, 1541-1568.	1.4	67
28	Simulations of Polarimetric, X-Band Radar Signatures in Supercells. Part I: Description of Experiment and Simulated Ïhv Rings. Journal of Applied Meteorology and Climatology, 2017, 56, 1977-1999.	1.5	22
29	Simulations of Polarimetric, X-Band Radar Signatures in Supercells. Part II: ZDR Columns and Rings and KDP Columns. Journal of Applied Meteorology and Climatology, 2017, 56, 2001-2026.	1.5	31
30	Comparison of the Analyses and Forecasts of a Tornadic Supercell Storm from Assimilating Phased-Array Radar and WSR-88D Observations. Weather and Forecasting, 2017, 32, 1379-1401.	1.4	22
31	Impact of VORTEX2 Observations on Analyses and Forecasts of the 5 June 2009 Goshen County, Wyoming, Supercell. Monthly Weather Review, 2016, 144, 429-449.	1.4	7
32	Prediction and Ensemble Forecast Verification of Hail in the Supercell Storms of 20 May 2013. Weather and Forecasting, 2016, 31, 811-825.	1.4	39
33	Comparison of Simulated Polarimetric Signatures in Idealized Supercell Storms Using Two-Moment Bulk Microphysics Schemes in WRF. Monthly Weather Review, 2016, 144, 971-996.	1.4	50
34	Multiscale EnKF Assimilation of Radar and Conventional Observations and Ensemble Forecasting for a Tornadic Mesoscale Convective System. Monthly Weather Review, 2015, 143, 1035-1057.	1.4	58
35	The Analysis and Prediction of Microphysical States and Polarimetric Radar Variables in a Mesoscale Convective System Using Double-Moment Microphysics, Multinetwork Radar Data, and the Ensemble Kalman Filter. Monthly Weather Review, 2014, 142, 141-162.	1.4	59
36	Low-Level ZDR Signatures in Supercell Forward Flanks: The Role of Size Sorting and Melting of Hail. Journals of the Atmospheric Sciences, 2014, 71, 276-299.	1.7	100

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37	A Hybrid MPIâ€"OpenMP Parallel Algorithm and Performance Analysis for an Ensemble Square Root Filter Designed for Multiscale Observations. Journal of Atmospheric and Oceanic Technology, 2013, 30, 1382-1397.	1.3	18
38	Progress and challenges with Warn-on-Forecast. Atmospheric Research, 2013, 123, 2-16.	4.1	151
39	Low-Level Polarimetric Radar Signatures in EnKF Analyses and Forecasts of the May 8, 2003 Oklahoma City Tornadic Supercell: Impact of Multimoment Microphysics and Comparisons with Observation. Advances in Meteorology, 2013, 2013, 1-13.	1.6	8
40	Ensemble Kalman Filter Analyses of the 29â€"30 May 2004 Oklahoma Tornadic Thunderstorm Using One- and Two-Moment Bulk Microphysics Schemes, with Verification against Polarimetric Radar Data. Monthly Weather Review, 2012, 140, 1457-1475.	1.4	78
41	Ensemble Probabilistic Forecasts of a Tornadic Mesoscale Convective System from Ensemble Kalman Filter Analyses Using WSR-88D and CASA Radar Data. Monthly Weather Review, 2012, 140, 2126-2146.	1.4	57
42	Analysis of a Tornadic Mesoscale Convective Vortex Based on Ensemble Kalman Filter Assimilation of CASA X-Band and WSR-88D Radar Data. Monthly Weather Review, 2011, 139, 3446-3468.	1.4	73
43	State estimation of convective storms with a twoâ€moment microphysics scheme and an ensemble Kalman filter: Experiments with simulated radar data. Quarterly Journal of the Royal Meteorological Society, 2010, 136, 685-700.	2.7	17
44	Simulations of Polarimetric Radar Signatures of a Supercell Storm Using a Two-Moment Bulk Microphysics Scheme. Journal of Applied Meteorology and Climatology, 2010, 49, 146-163.	1.5	110
45	Simultaneous Estimation of Microphysical Parameters and the Atmospheric State Using Simulated Polarimetric Radar Data and an Ensemble Kalman Filter in the Presence of an Observation Operator Error. Monthly Weather Review, 2010, 138, 539-562.	1.4	45
46	Assimilation of Simulated Polarimetric Radar Data for a Convective Storm Using the Ensemble Kalman Filter. Part I: Observation Operators for Reflectivity and Polarimetric Variables. Monthly Weather Review, 2008, 136, 2228-2245.	1.4	140
47	Assimilation of Simulated Polarimetric Radar Data for a Convective Storm Using the Ensemble Kalman Filter. Part II: Impact of Polarimetric Data on Storm Analysis. Monthly Weather Review, 2008, 136, 2246-2260.	1.4	87
48	Error modeling of simulated reflectivity observations for ensemble Kalman filter assimilation of convective storms. Geophysical Research Letters, 2007, 34, .	4.0	13