

Joseph A Santanello Jr

List of Publications by Year in descending order

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66
papers

3,452
citations

136950

32
h-index

144013

57
g-index

69
all docs

69
docs citations

69
times ranked

4231
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Landâ€™Atmosphere Interactions: The LoCo Perspective. Bulletin of the American Meteorological Society, 2018, 99, 1253-1272. | 3.3 | 226 |
| 2 | The impact of anthropogenic land use and land cover change on regional climate extremes. Nature Communications, 2017, 8, 989. | 12.8 | 207 |
| 3 | Diurnal Covariation in Soil Heat Flux and Net Radiation. Journal of Applied Meteorology and Climatology, 2003, 42, 851-862. | 1.7 | 200 |
| 4 | The Plumbing of Land Surface Models: Benchmarking Model Performance. Journal of Hydrometeorology, 2015, 16, 1425-1442. | 1.9 | 191 |
| 5 | Diagnosing the Sensitivity of Local Landâ€™Atmosphere Coupling via the Soil Moistureâ€™Boundary Layer Interaction. Journal of Hydrometeorology, 2011, 12, 766-786. | 1.9 | 188 |
| 6 | A Modeling and Observational Framework for Diagnosing Local Landâ€™Atmosphere Coupling on Diurnal Time Scales. Journal of Hydrometeorology, 2009, 10, 577-599. | 1.9 | 166 |
| 7 | Evaluating the utility of satellite soil moisture retrievals over irrigated areas and the ability of land data assimilation methods to correct for unmodeled processes. Hydrology and Earth System Sciences, 2015, 19, 4463-4478. | 4.9 | 134 |
| 8 | A comparison of methods for a priori bias correction in soil moisture data assimilation. Water Resources Research, 2012, 48, . | 4.2 | 126 |
| 9 | Impact of urbanization on US surface climate. Environmental Research Letters, 2015, 10, 084010. | 5.2 | 116 |
| 10 | Irrigation Signals Detected From SMAP Soil Moisture Retrievals. Geophysical Research Letters, 2017, 44, 11,860. | 4.0 | 111 |
| 11 | Using remotely-sensed estimates of soil moisture to infer soil texture and hydraulic properties across a semi-arid watershed. Remote Sensing of Environment, 2007, 110, 79-97. | 11.0 | 109 |
| 12 | Integrated modeling of aerosol, cloud, precipitation and land processes at satellite-resolved scales. Environmental Modelling and Software, 2015, 67, 149-159. | 4.5 | 95 |
| 13 | Diagnosing the Nature of Landâ€™Atmosphere Coupling: A Case Study of Dry/Wet Extremes in the U.S. Southern Great Plains. Journal of Hydrometeorology, 2013, 14, 3-24. | 1.9 | 86 |
| 14 | Confronting Weather and Climate Models with Observational Data from Soil Moisture Networks over the United States. Journal of Hydrometeorology, 2016, 17, 1049-1067. | 1.9 | 83 |
| 15 | Acceleration of Land Surface Model Development over a Decade of Glass. Bulletin of the American Meteorological Society, 2011, 92, 1593-1600. | 3.3 | 82 |
| 16 | Impact of Irrigation Methods on Land Surface Model Spinup and Initialization of WRF Forecasts. Journal of Hydrometeorology, 2015, 16, 1135-1154. | 1.9 | 75 |
| 17 | A New Research Approach for Observing and Characterizing Landâ€™Atmosphere Feedback. Bulletin of the American Meteorological Society, 2018, 99, 1639-1667. | 3.3 | 75 |
| 18 | Convective Planetary Boundary Layer Interactions with the Land Surface at Diurnal Time Scales: Diagnostics and Feedbacks. Journal of Hydrometeorology, 2007, 8, 1082-1097. | 1.9 | 71 |

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|----|--|-----|-----------|
| 19 | Effect of land cover on atmospheric processes and air quality over the continental United States â€” a NASA Unified WRF (NU-WRF) model study. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 6207-6226. | 4.9 | 67 |
| 20 | Verification of Landâ€”Atmosphere Coupling in Forecast Models, Reanalyses, and Land Surface Models Using Flux Site Observations. <i>Journal of Hydrometeorology</i> , 2018, 19, 375-392. | 1.9 | 66 |
| 21 | An Empirical Investigation of Convective Planetary Boundary Layer Evolution and Its Relationship with the Land Surface. <i>Journal of Applied Meteorology and Climatology</i> , 2005, 44, 917-932. | 1.7 | 65 |
| 22 | Representation of Soil Moisture Feedbacks during Drought in NASA Unified WRF (NU-WRF). <i>Journal of Hydrometeorology</i> , 2013, 14, 360-367. | 1.9 | 62 |
| 23 | Introducing multisensor satellite radiance-based evaluation for regional Earth System modeling. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 8450-8475. | 3.3 | 58 |
| 24 | Land surface Verification Toolkit (LVT) â€” a generalized framework for land surface model evaluation. <i>Geoscientific Model Development</i> , 2012, 5, 869-886. | 3.6 | 54 |
| 25 | Understanding the Impacts of Soil Moisture Initial Conditions on NWP in the Context of Landâ€”Atmosphere Coupling. <i>Journal of Hydrometeorology</i> , 2019, 20, 793-819. | 1.9 | 44 |
| 26 | Quantifying the Landâ€”Atmosphere Coupling Behavior in Modern Reanalysis Products over the U.S. Southern Great Plains. <i>Journal of Climate</i> , 2015, 28, 5813-5829. | 3.2 | 43 |
| 27 | The Plumbing of Land Surface Models: Is Poor Performance a Result of Methodology or Data Quality?. <i>Journal of Hydrometeorology</i> , 2016, 17, 1705-1723. | 1.9 | 43 |
| 28 | Assessment of irrigation physics in a land surface modeling framework using non-traditional and human-practice datasets. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 2953-2966. | 4.9 | 39 |
| 29 | Quantifying the change in soil moisture modeling uncertainty from remote sensing observations using Bayesian inference techniques. <i>Water Resources Research</i> , 2012, 48, . | 4.2 | 37 |
| 30 | Impact of Land Model Calibration on Coupled Landâ€”Atmosphere Prediction. <i>Journal of Hydrometeorology</i> , 2013, 14, 1373-1400. | 1.9 | 36 |
| 31 | Impact of Soil Moisture Assimilation on Land Surface Model Spinup and Coupled Landâ€”Atmosphere Prediction. <i>Journal of Hydrometeorology</i> , 2016, 17, 517-540. | 1.9 | 36 |
| 32 | Role of precipitation uncertainty in the estimation of hydrologic soil properties using remotely sensed soil moisture in a semiarid environment. <i>Water Resources Research</i> , 2008, 44, . | 4.2 | 35 |
| 33 | The Heated Condensation Framework. Part I: Description and Southern Great Plains Case Study. <i>Journal of Hydrometeorology</i> , 2015, 16, 1929-1945. | 1.9 | 31 |
| 34 | Integrating continuous atmospheric boundary layer and tower-based flux measurements to advance understanding of land-atmosphere interactions. <i>Agricultural and Forest Meteorology</i> , 2021, 307, 108509. | 4.8 | 31 |
| 35 | The Heated Condensation Framework. Part II: Climatological Behavior of Convective Initiation and Landâ€”Atmosphere Coupling over the Conterminous United States. <i>Journal of Hydrometeorology</i> , 2015, 16, 1946-1961. | 1.9 | 25 |
| 36 | Using ARM Observations to Evaluate Climate Model Simulations of Landâ€”Atmosphere Coupling on the U.S. Southern Great Plains. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 11,524. | 3.3 | 24 |

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|----|---|------|-----------|
| 37 | Mesoscale Simulation of Rapid Soil Drying and Its Implications for Predicting Daytime Temperature. <i>Journal of Hydrometeorology</i> , 2001, 2, 71-88. | 1.9 | 21 |
| 38 | An intensified seasonal transition in the Central U.S. that enhances summer drought. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 8804-8816. | 3.3 | 21 |
| 39 | Development and Evaluation of a Long-Term Data Record of Planetary Boundary Layer Profiles From Aircraft Meteorological Reports. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 2008-2030. | 3.3 | 21 |
| 40 | Influence of Land Cover and Soil Moisture based Brown Ocean Effect on an Extreme Rainfall Event from a Louisiana Gulf Coast Tropical System. <i>Scientific Reports</i> , 2019, 9, 17136. | 3.3 | 20 |
| 41 | Assessing the Impact of L-Band Observations on Drought and Flood Risk Estimation: A Decision-Theoretic Approach in an OSSE Environment. <i>Journal of Hydrometeorology</i> , 2014, 15, 2140-2156. | 1.9 | 17 |
| 42 | Utility of Satellite Remote Sensing for Land-Atmosphere Coupling and Drought Metrics. <i>Journal of Hydrometeorology</i> , 2017, 18, 863-877. | 1.9 | 17 |
| 43 | Impacts of Irrigation on Summertime Temperatures in the Pacific Northwest. <i>Earth Interactions</i> , 2020, 24, 1-26. | 1.5 | 16 |
| 44 | Atmospheric boundary layer dynamics from balloon soundings worldwide: CLASS4GL v1.0. <i>Geoscientific Model Development</i> , 2019, 12, 2139-2153. | 3.6 | 15 |
| 45 | Increased Likelihood of Appreciable Afternoon Rainfall Over Wetter or Drier Soils Dependent Upon Atmospheric Dynamic Influence. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087779. | 4.0 | 15 |
| 46 | Global evaluation of terrestrial near-surface air temperature and specific humidity retrievals from the Atmospheric Infrared Sounder (AIRS). <i>Remote Sensing of Environment</i> , 2021, 252, 112146. | 11.0 | 15 |
| 47 | Aircraft observed diurnal variations of the planetary boundary layer under heat waves. <i>Atmospheric Research</i> , 2020, 235, 104801. | 4.1 | 14 |
| 48 | Estimating evaporative fraction from readily obtainable variables in mangrove forests of the Everglades, U.S.A.. <i>International Journal of Remote Sensing</i> , 2017, 38, 3981-4007. | 2.9 | 12 |
| 49 | Heterogeneity in Warm-Season Land-Atmosphere Coupling Over the U.S. Southern Great Plains. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7867-7882. | 3.3 | 12 |
| 50 | Assimilation of NASA's Airborne Snow Observatory Snow Measurements for Improved Hydrological Modeling: A Case Study Enabled by the Coupled LIS/WRF-Hydro System. <i>Water Resources Research</i> , 2022, 58, . | 4.2 | 12 |
| 51 | Sensitivity of CONUS Summer Rainfall to the Selection of Cumulus Parameterization Schemes in NU-WRF Seasonal Simulations. <i>Journal of Hydrometeorology</i> , 2017, 18, 1689-1706. | 1.9 | 11 |
| 52 | Quantification of the Land Surface and Brown Ocean Influence on Tropical Cyclone Intensification over Land. <i>Journal of Hydrometeorology</i> , 2020, 21, 1171-1192. | 1.9 | 11 |
| 53 | Modeling Regional Pollution Transport Events During KORUS-AQ: Progress and Challenges in Improving Representation of Land-Atmosphere Feedbacks. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 10732-10756. | 3.3 | 10 |
| 54 | The Great Plains Irrigation Experiment (GRAINEX). <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E1756-E1785. | 3.3 | 10 |

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|----|--|-----|-----------|
| 55 | Assessing the Impact of Soil Layer Depth Specification on the Observability of Modeled Soil Moisture and Brightness Temperature. <i>Journal of Hydrometeorology</i> , 2020, 21, 2041-2060. | 1.9 | 9 |
| 56 | Estimating Evapotranspiration From Satellite Using Easily Obtainable Variables: A Case Study Over the Southern Great Plains, USA. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2018, 11, 12-23. | 4.9 | 8 |
| 57 | Assimilation of lidar planetary boundary layer height observations. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 1099-1110. | 3.1 | 6 |
| 58 | Data Availability Principles and Practice. <i>Earth Interactions</i> , 2020, 24, 1. | 1.5 | 5 |
| 59 | The Inland Maintenance and Re-intensification of Tropical Storm Bill (2015) Part 2: Precipitation Microphysics. <i>Journal of Hydrometeorology</i> , 2021, , . | 1.9 | 4 |
| 60 | Impact of Aerosols From Urban and Shipping Emission Sources on Terrestrial Carbon Uptake and Evapotranspiration: A Case Study in East Asia. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD030818. | 3.3 | 3 |
| 61 | Landâ€™Atmosphere Coupling at the U.S. Southern Great Plains: A Comparison on Local Convective Regimes between ARM Observations, Reanalysis, and Climate Model Simulations. <i>Journal of Hydrometeorology</i> , 2021, 22, 463-481. | 1.9 | 3 |
| 62 | Understanding the Impacts of Land Surface and PBL Observations on the Terrestrial and Atmospheric Legs of Landâ€™Atmosphere Coupling. <i>Journal of Hydrometeorology</i> , 2021, 22, 2241-2258. | 1.9 | 3 |
| 63 | Evaluating the impact of model resolutions and cumulus parameterization on precipitation in NU-WRF: A case study in the Central Great Plains. <i>Environmental Modelling and Software</i> , 2021, 145, 105184. | 4.5 | 3 |
| 64 | The Inland Maintenance and Reintensification of Tropical Storm Bill (2015) Part 1: Contributions of the Brown Ocean Effect. <i>Journal of Hydrometeorology</i> , 2021, , . | 1.9 | 1 |
| 65 | Impact of irrigation methods on LSM spinup and initialization of WRF forecasts. , 2013, , . | | 0 |
| 66 | Introducing the atmospheric thermodynamics lidar in Space: ATLAS. , 2019, , . | | 0 |