

Rochelle P. Worsnop, Ph.D.  
NOAA Physical Sciences Laboratory  
<https://psl.noaa.gov/people/rochelle.worsnop/>

### Manuscripts under review

**Worsnop, R. P.**, M. Scheuerer, T. M. Hamill, and T. Smith: RUFCO: a deep-learning framework to post-process subseasonal precipitation accumulation forecasts (under review).

### Peer-reviewed publications

**Worsnop, R. P.**, M. Scheuerer, F. DiGiuseppe, C. Barnard, T. M. Hamill, and C. Vitolo: Probabilistic fire-danger forecasting, 2021: A framework for week-two forecasts using statistical postprocessing techniques and the Global ECMWF Fire Forecast System (GEFF). *Wea. Forecasting*, 36, 2113–2125. <https://doi.org/10.1175/WAF-D-21-0075.1>.

Banta R. M., Y. L. Pichugina, L. S. Darby, A. Brewer, J. B. Olson, J. S. Kenyon, S. Baidar, S. G. Benjamin, H. J. S. Fernando, K. O. Lants, J. K. Lundquist, B. J. McCarty, T. Marke, S. P. Sandberg, J. Sharp, W. J. Shaw, D. D. Turner, J. M. Wilczak, **R. Worsnop**, M. T. Stoelinga, 2021: Doppler Lidar Evaluation of HRRR Model Skill at Simulating Summertime Wind Regimes in the Columbia River Basin during WFIP2. *Wea. Forecasting*, 36, 1961–1983. <https://doi.org/10.1175/WAF-D-21-0012.1>

Draxl, C., **R. P. Worsnop**, G. Xia, Y. Pichugina, D. Chand, J. K. Lundquist, J. Sharp, G. Wedam, J. Wilczak, L. Berg, 2021: Mountain waves impact wind power generation. *Wind Energ. Sci.*, 6, 45–60. <https://doi.org/10.5194/wes-6-45-2021>.

Scheuerer, M., M. B. Switanek, **R. P. Worsnop**, and T. M. Hamill, 2020: Using artificial neural networks for generating probabilistic subseasonal precipitation forecasts over California. *Mon. Wea. Rev.*, 148 (8), 3489–3506, <https://doi.org/10.1175/MWR-D-20-0096.1>.

**Worsnop, R. P.**, M. Scheuerer, and T. M. Hamill, 2020: Extended-range probabilistic fireweather forecasting based on Ensemble Model Output Statistics and Ensemble Copula Coupling. *Mon. Wea. Rev.*, 148, 499–521, <https://doi.org/10.1175/MWR-D-19-0217.1>.

Pichugina, Y., R. Banta, W. Brewer, L. Bianco, C. Draxl, J. Kenyon, J. Lundquist, J. Olson, D. Turner, S. Wharton, J. Wilczak, S. Baidar, L. Berg, H. Fernando, B. McCarty, R. Rai, B. Roberts, J. Sharp, W. Shaw, M. Stoelinga, and **R. Worsnop**, 2020: Evaluating the WFIP2 updates to the HRRR model using scanning Doppler lidar measurements in the complex terrain of the Columbia River Basin. *J. Renew. Sustain. Energy*, 12, 043301, <https://doi.org/10.1063/5.0009138>.

Kapoor, A., S. Ouakka, S. R. Arwade, J. K. Lundquist, M. A. Lackner, A. T. Myers, **R. P. Worsnop**, and G. H. Bryan, 2020: Hurricane eyewall winds and structural response of wind turbines. *Wind Energ. Sci.*, 5 (1), 89–104, <https://doi.org/10.5194/wes-5-89-2020>.

Wilczak, J.,...36 other coauthors...and **R. P. Worsnop**, 2019: The second Wind Forecast Improvement Project (WFIP2): Observational Field Campaign. *Bull. Amer. Meteor. Soc.*, 100 (9), 1701–1723. <https://doi.org/10.1175/BAMS-D-18-0035.1>.

**Worsnop, R. P.**, M. Scheuerer, T. M. Hamill, and J. K. Lundquist, 2018: Generating wind power scenarios for probabilistic ramp event prediction using multivariate statistical postprocessing. *Wind Energ. Sci.*, 3, 371–393. <https://doi.org/10.5194/wes-3-371-2018>.

**Worsnop, R. P.**, J. K. Lundquist, G. H. Bryan, W. Musial, and R. Damiani, 2017. Gusts and shear within hurricane eyewalls can exceed offshore wind turbine design standards. *Geophys. Res. Lett.*, 44, 6413–6420. <https://doi.org/10.1002/2017GL073537>.

**Worsnop, R. P.**, G. H. Bryan, J. K. Lundquist, and J. A. Zhang, 2017: Using large-eddy simulations to define spectral and coherence characteristics of the hurricane boundary layer for wind-energy applications. *Bound.-Layer Meteor.*, 165, 55–86. <https://doi.org/10.1007/s10546-017-0266-x>.

Bryan, G. H., **R. P. Worsnop**, J. K. Lundquist, and J. A. Zhang, 2016: A simple method for simulating wind profiles in the boundary layer of tropical cyclones. *Bound.-Layer Meteor.*, 162, 457–502. <https://doi.org/10.1007/s10546-016-0207-0>.

Lundquist, J. K.,...34 other coauthors...and **R. P. Worsnop**, 2017. Assessing state-of-the-art capabilities for probing the atmospheric boundary layer: the XPIA field campaign. *Bull. Amer. Meteor. Soc.*, 98, 289–314. <https://doi.org/10.1175/BAMS-D-15-00151.1>.