**Program for the Joint WRF/MPAS Users’ Workshop 2021 (Virtual)**

Location: Online

7-10 June 2021

\****All times are Mountain Daylight Savings time***

**Monday, June 7**

***Short Instruction Sessions***

9:00-10:30 VAPOR (Scott Pearse)

9:00-10:30 MPAS Regional (MMM)

10:30-12:00 WRF-Python (M. Sizemore)

**Tuesday, June 8**

***Session: Development Updates***

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| 9:00-9:15 | Welcome Remarks |
| 9:15-9:40 | The Weather Research and Forecasting Model: 2021 Annual Update. **Jimy Dudhia**, *MMM/NCAR* |
| 9:40–10:00 | MPAS Updates. **Bill Skamarock**, *MMM/NCAR* |
| 10:00-10:20 | WRFDA 2021 Update and Status of MPAS DA with JEDI. **Jake Liu** and Chris Snyder*, MMM/NCAR* |
| 10:20-10:40 | *Break* |
| 10:40-11:00 | WRF-Chem V4.3: A Summary of Status, Updates, Applications, and Future Plans. **Jordan Schnell**, *NOAA/GSL* |
| 11:00-11:20 | Recent Updates on Land Model Physics of WRF Version 4.3. **Cenlin He**, *RAL/NCAR* |
| 11:20-11:40 | WRF Hydro (Speaker TBD) |
| 11:40-12:00 | Cloud Computing Support for the Weather Research and Forecasting Model. **K. Werner,** J. Powers, and D. Gill, *MMM/NCAR* |

**Wednesday, June 9**

***Session: Model applications***

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| 9:00-9:20 | Impact of Upstream Tropopause Polar Vortex Observations on the Evolution of Twin Arctic Cyclones in June 2020. **Tomer Burg** and Steve Cavallo, *University of Oklahoma* |
| 9:20-9:40 | Recent advances in the WRF-Solar model. **Pedro Jimenez**, *RAL/NCAR* |
| 9:40–10:00 | Tropical Convection and Subseasonal Weather Prediction in a Global Convection-Permitting model. **Nick Weber**, *University of Washington* |
| 10:00-10:20 | Modulation of Atmospheric Rivers by Mesoscale Frontal Waves and Latent Heating: Comparison of Two U.S. West Coast Events. **Allison Michaelis** et al., *Northern Illinois University* |
| 10:20-10:40 | *Break* |
| 10:40-11:00 | Convection-Permitting WRF Climate Modeling at Continental-Scales. **Andreas Prein**, R. Rasmussen, C. Liu, and K. Ikeda, *NCAR* |
| 11:00-11:20 | Design and Configuration of MPAS for Deep-Atmosphere NWP and Geospace Applications. **Joe Klemp** and B. Skamarock, *MMM/NCAR* |
| 11:20-11:40 | The NOAA RAP/HRRR orographic drag suite addition to WRF. **Mike Toy**, J. Olson, T. Smirnova, J. Kenyon, J. Brown, and G. Grell, *NOAA/GSL* |
| 11:40-12:00 | MPAS-Atmosphere in SIMA and CESM-CAM: Preliminary results. **Bill  Skamarock**, Peter Lauritzen, Michael Duda, John Truesdale, Miles Curry, *NCAR* |

**Thursday, June 10**

***Session: Physics developments / Challenges***

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| 9:00-9:30 | An Overview of Physical Parameterization Development for the Unified Forecast System. **Joe Olson,** *NOAA* |
| 9:30-9:50 | Evaluation of Planetary Boundary Layer (PBL) Parameterizations Using Large-eddy Simulations (LES) in a Broad Range of Conditions. **G. Bryan**, *NCAR/MMM* |
| 9:50–10:10 | The E-epsilon PBL Scheme in the WRF Model. **Chunxi Zhang**,  *NOAA/NCEP/EMC* |
| 10:10-10:30 | Simulations Across Scales over Complex Terrain: Lessons Learned from a Perdigao Case Study. **Patrick Hawbecker**, Branko Kosović, Domingo Muñoz-Esparza, Jeremy Sauer, Jimy Dudhia, Edward G. Patton, *RAL/NCAR* |
| 10:30-10:50 | *Break* |
| 10:50-11:20 | Microphysics: Basics of microphysics in weather and climate models. **H. Morrison,** *MMM/NCAR* |
| 11:20-11:40 | Does WRF Have a Warm Rain Problem? **Robert Conrick**, *University of Washington* |
| 11:40-12:00 | The Predicted Particle Properties (P3) Microphysics Scheme -- Applications for Research and Operational NWP. **Jason Milbrandt**, *Environment Canada* |