

**P58 U.S. Army Research Laboratory high-resolution WRF modeling and data assimilation research for Army research and nowcasting applications**

**Dumais, Robert**, Brian Reen, Huaqing Cai, Richard Penc, Jeffrey Smith & Jeffrey Passner, *United States Army Research Laboratory*

The U.S. Army Research Laboratory is experimenting with and testing different configurations of the WRF-ARW model to serve the current and future operational and research global nowcasting needs of the Army- particularly within the atmospheric boundary layer. This research includes elements evaluating WRF limited-area model nesting, physics, data assimilation, ensemble, and model verification strategies, and also keeps with an eye towards the more-likely operational battlefield compute & data-availability solutions possible in both the near and more-distant futures.