

98th Annual Meeting AUSTIN | 7-11 JANUARY 2018

3.1: MetPy Advancement and Community-Driven Development

Monday, 8 January 2018 10:30 AM - 10:45 AM Q Austin Convention Center and Hilton - Room 8 ABC (ACC)

MetPy is an open-source and community-driven Python package for meteorology, designed to fit well within the the scientific Python stack (numpy, matplotlib, etc.). Its goal is to bring the scripted weather analysis capabilities of GEMPAK (and tools like it) to the powerful scientific Python ecosystem. The guiding principle is to make MetPy easy to use with any dataset that can be read into Python. MetPy's general functionality breaks down into: reading data, meteorological calculations, and meteorology-specific plotting.

This work provides an overview of recent additions to MetPy's suite of capabilities and online documentation. These include, among many others, additional calculations for severe weather indices such as convective available potential energy (CAPE), Bunker's storm motion, and precipitable water, as well as new features such as isentropic level interpolation. Documentation and examples have also grown to include items like meteograms and interpolation from sigma coordinates.

As a community-driven project, contributions from the community are especially important to MetPy's development. These contributions range from bug reports on the GitHub issue track to documentation and example additions, to new features. As part of this talk, contributions from MetPy's users will be highlighted. The process for contributing to MetPy will also be discussed to encourage further participation from the community.

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