

An Open-Source Python Package to Integrate and Analyze Precipitation Datasets



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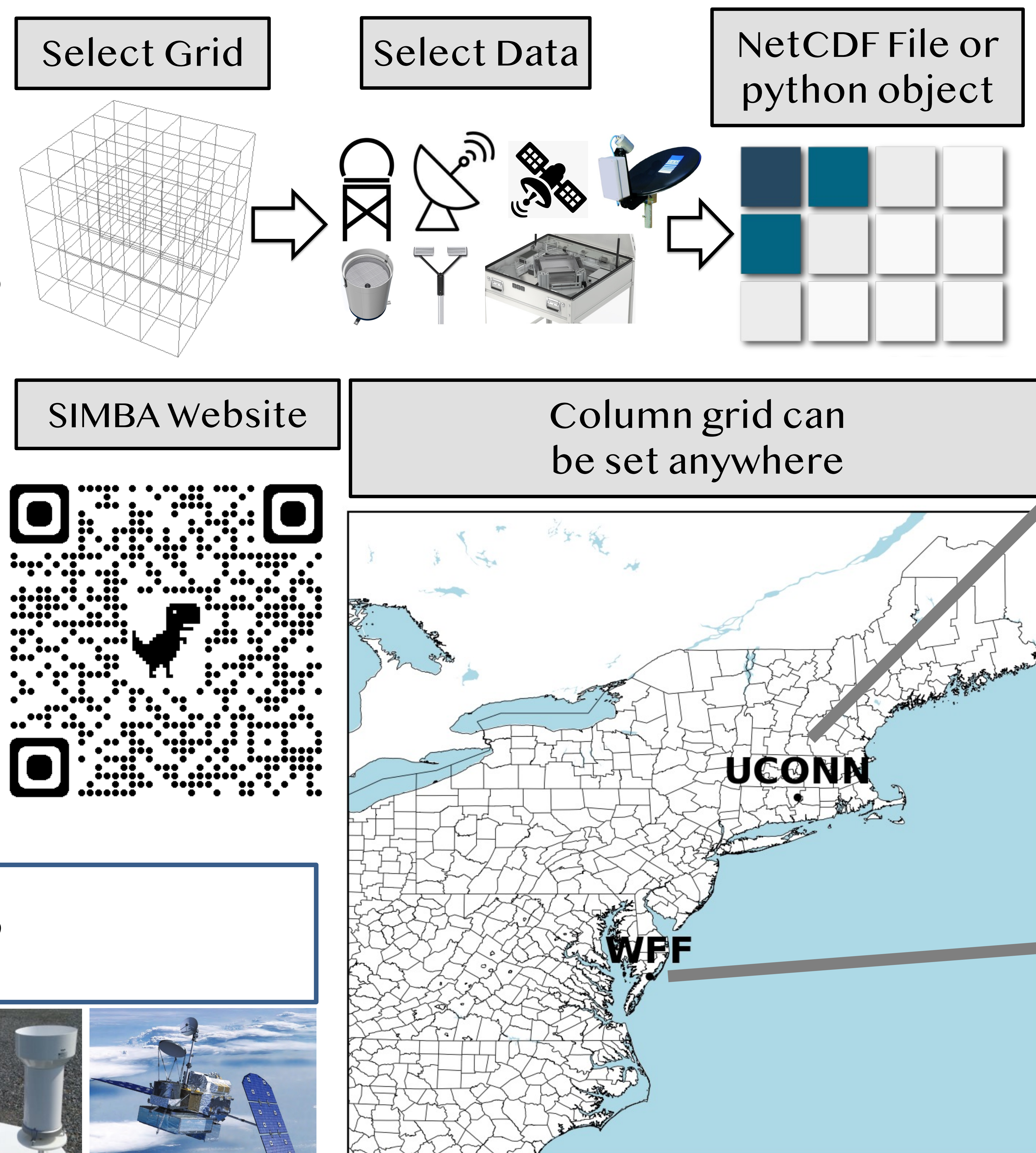


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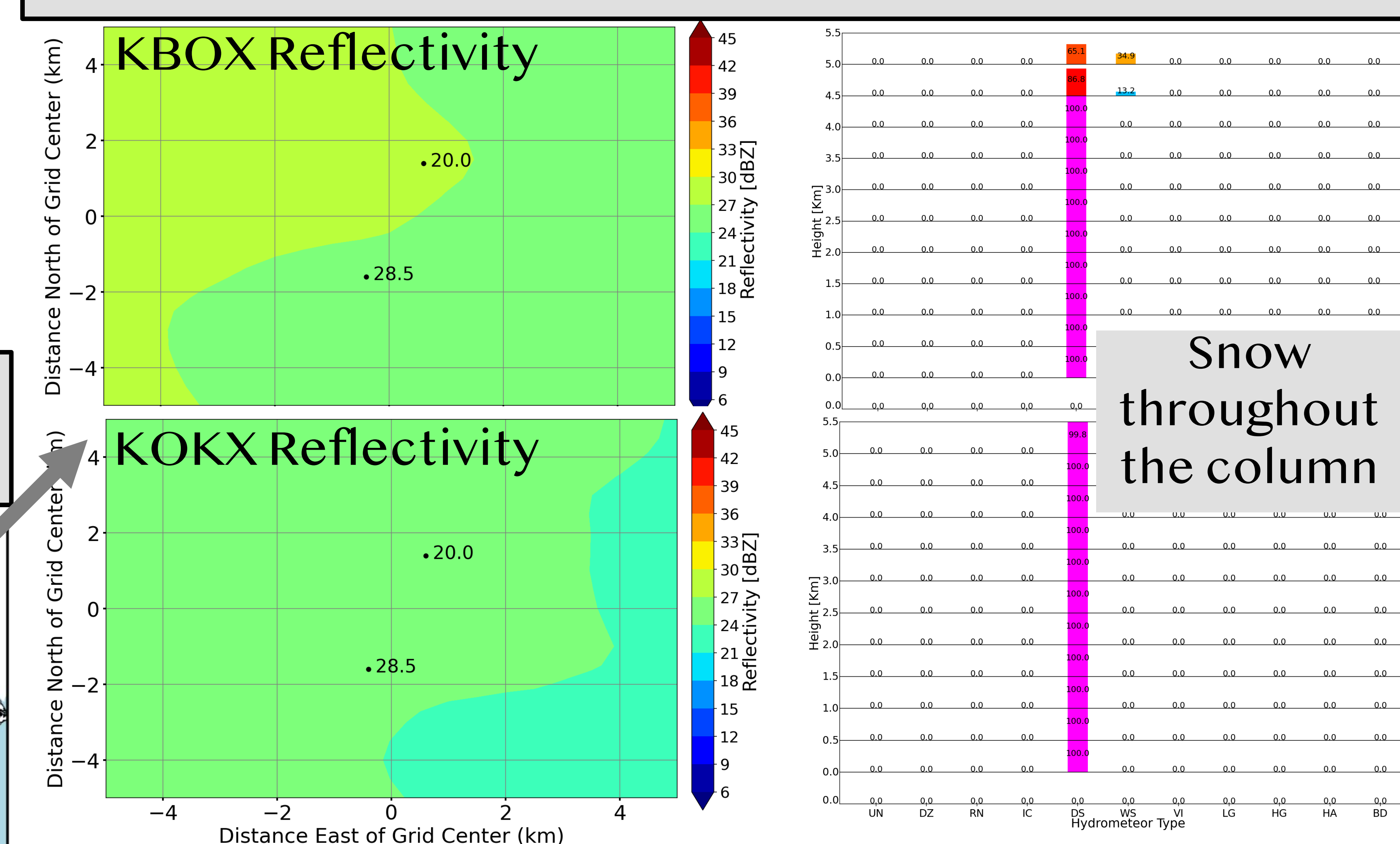
Introduction

- ❖ NASA's Transformation to Open Science (TOPS) initiative led the Global Precipitation Measurement (GPM) Ground Validation (GV) program to develop a python package to integrate precipitation datasets.
- ❖ System for Integrating Multiplatform Data to Build the Atmospheric Column (SIMBA, Wingo et al. 2018) was originally written in IDL; however, the license cost facilitated GPM GV to convert the code to Python.
- ❖ SIMBA framework was used to validate NASA GPM Level 1 Science Requirements (Pabla et al. 2022).
- ❖ Python SIMBA (pySIMBA) V0.1 is available via GitHub to download.
<https://github.com/GPM-GV/pySIMBA>.

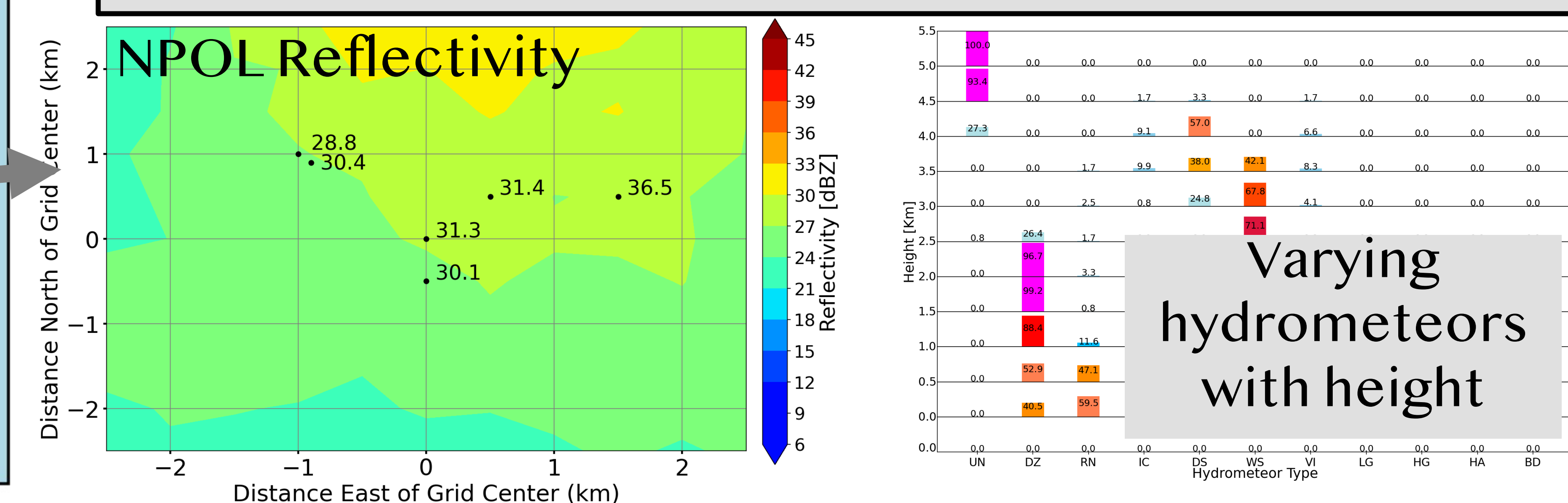
What is SIMBA?



Investigation of Microphysics and Precipitation for Atlantic Coast Threatening Snowstorms (IMPACTS) Example



NASA Wallops Precipitation Research Facility Example



Current Datasets



Future Datasets



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