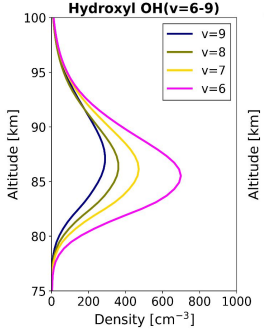
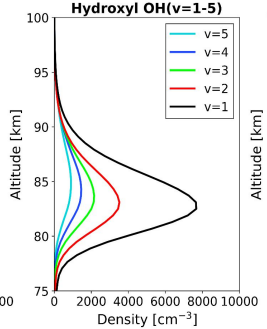
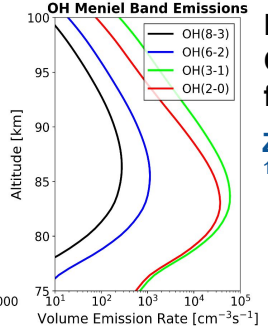






Preliminary Results of Community Software: OH Conversion and CNN-Based GW Detection for High-Resolution WACCM-X (0.25º) and AWE

Zishun Qiao[1], Han-Li Liu[1], Jonathan Snively[2], Nikhil Rao[1]
[1]NSF NCAR High Altitude Observatory, [2]Embry-Riddle Aeronautical University

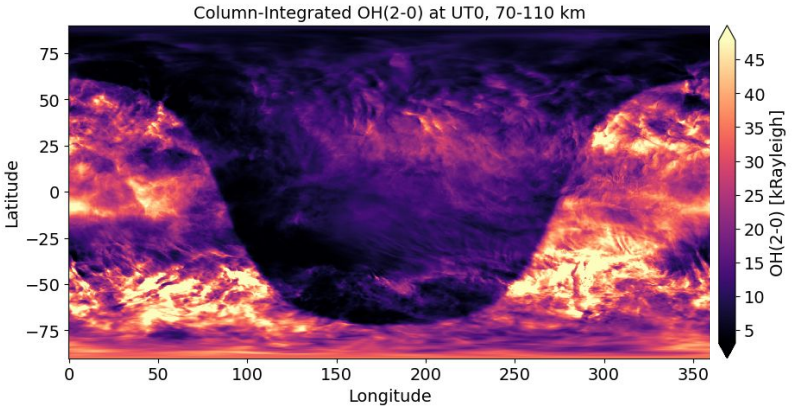
A consistent GW detection tool across data sets

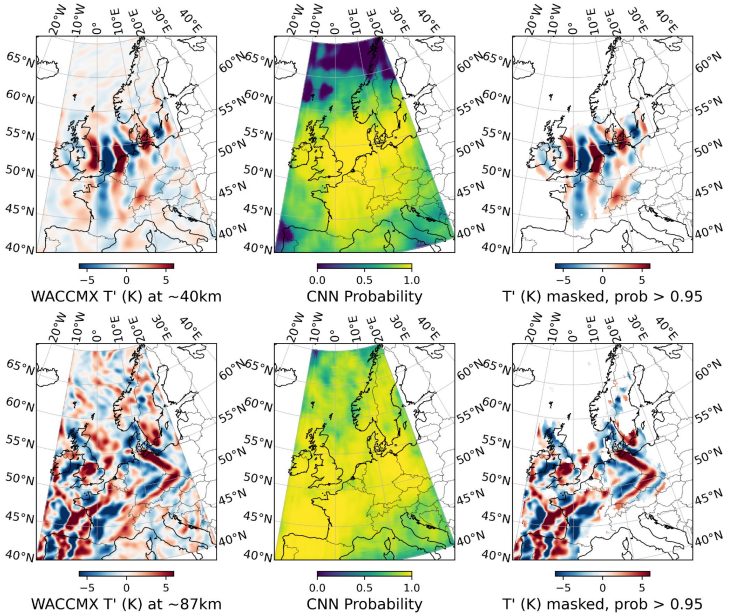
A CNN can be trained on AWE and applied to AWE-sampled WACCM-X output (Release planned with publication)

OH nightglow based on existing chemistry + MAGIC code allows conversion of simulated temperature to brightness-weighted temperature

More direct **data-model comparison tools** for WACCM-X and NASA AWE

Update to GCMprocpy (Community Python package)





Why it matters?

With the developed community software, we can sample WACCM-X as a "virtual satellite" and compare the model with what AWE observes, in addition to standard WACCM-X output.

Comments, suggestions, and collaborations are more than welcome!