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(Virtual Talk)
Cube of Calibrated Clouds for the NAVGEM Ensemble is a new statistical post-processing project with the long-term objective to generate a four-dimensional (4D) data cube of unbiased and calibrated probabilistic cloud forecasts from the surface to top-of-the-atmosphere and across the 0-7d forecast interval. Here we give a brief synopsis of the lineage of the project and the evolution of the attendant software system. We trace the historical application of the system to mission-critical variables such as significant wave height, icing severity, and turbulence severity. We then discuss its current extension to the cloud forecasting problem, including some early benchmark results using traditional statistical solutions, and future plans to move toward machine-learning (ML) solutions.
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