

Recent updates for satellite radiance DA at KMA

Global NWP system at KMA:

- KIM(Korean Integrated Model) launched April 2020.
Cubed sphere grid system, ne360np3 ~ 12 km(horizontal resolution)
- DA: Hybrid 4Demensional Ensemble Variation, ne144np3 ~ 32 km,
Ensemble(LETKF) 50 members.

New instruments activated since ITSC23:

- NOAA-20(ATMS, CrIS), MetOp-C(AMSU-A, MHS, IASI), MSG-2, Himawari-9
Now assimilate 7 MW Q-sounders, 7 MW T-sounders, 4 hyperspectral IR, 4 geo imagers, 1 MW imagers

Main changes since ITSC23:

- RTTOV version updates (10.2 → 12.3)
- MW: Expanding ATMS water vapor channel 21, 22
& AMSU-A channel 10-14 over land
- IR: Optimization of thinning and blacklisting for GK2A