Analysis: interpolation of weather data from physical locations to gridded locations (Stull, p. 280). Since weather observations are not homogenous, results from previous forecast are also used as a first guess.

Reanalysis: Process observed data over a time period using a fixed analysis method. Implement weather models to fill data over gaps.

# Weather models used in our team:

1. WRF-ARW
2. WRF-NMM
3. MM5
4. MPAS

Using these 4 models ensembles are created by using different:

1. Resolutions (1.33 to 108 km)
2. Initial conditions: GFS, NAM, GEM, NAVGEM, ARPEGE, ICON

Suggested models over Nepal:

1. Meteorological Forecasting Division – DHM Nepal outputs
   1. Runs WRF-EMS (WRF-ARW + NMM + other cool scripts)
   2. 12 km grid for South Asia and 4 km grid for Nepal
   3. How do I get data?
2. NCEP GFS