First-order scale-selectivity
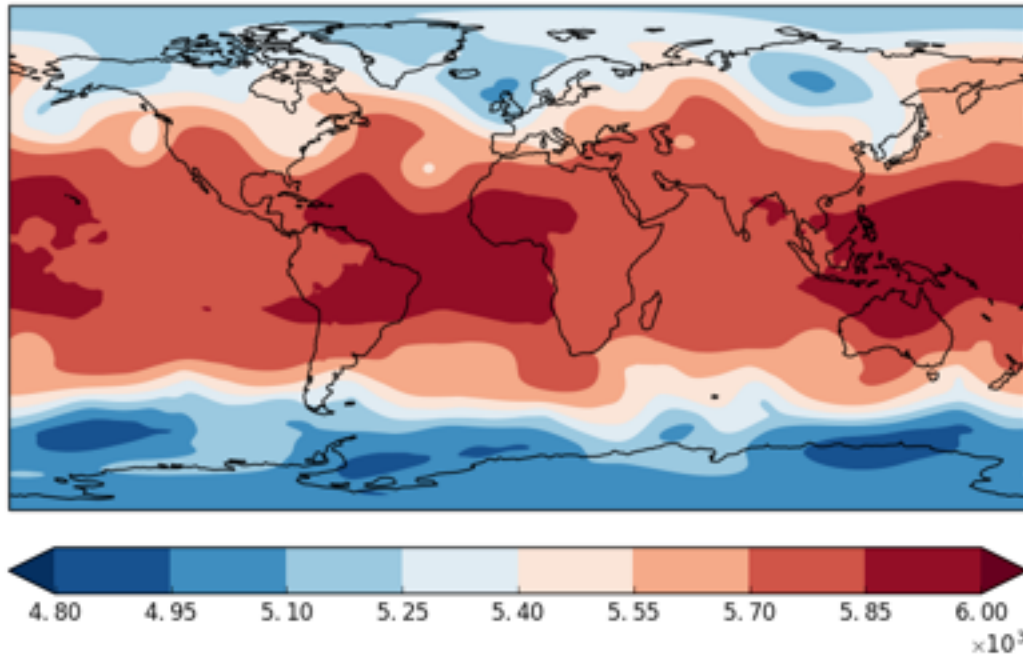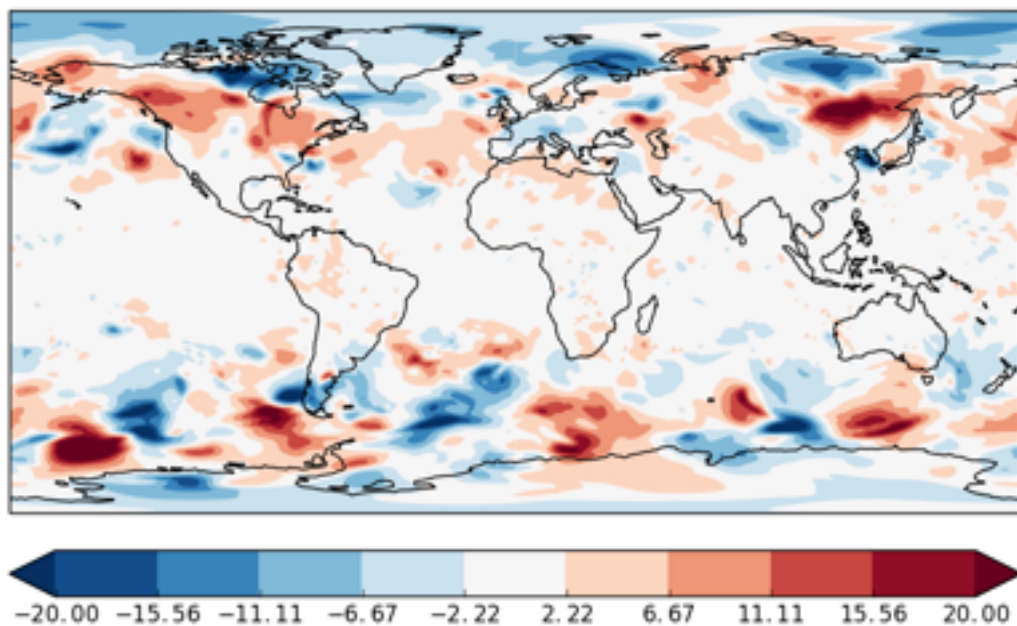
Z500hP after 120hours
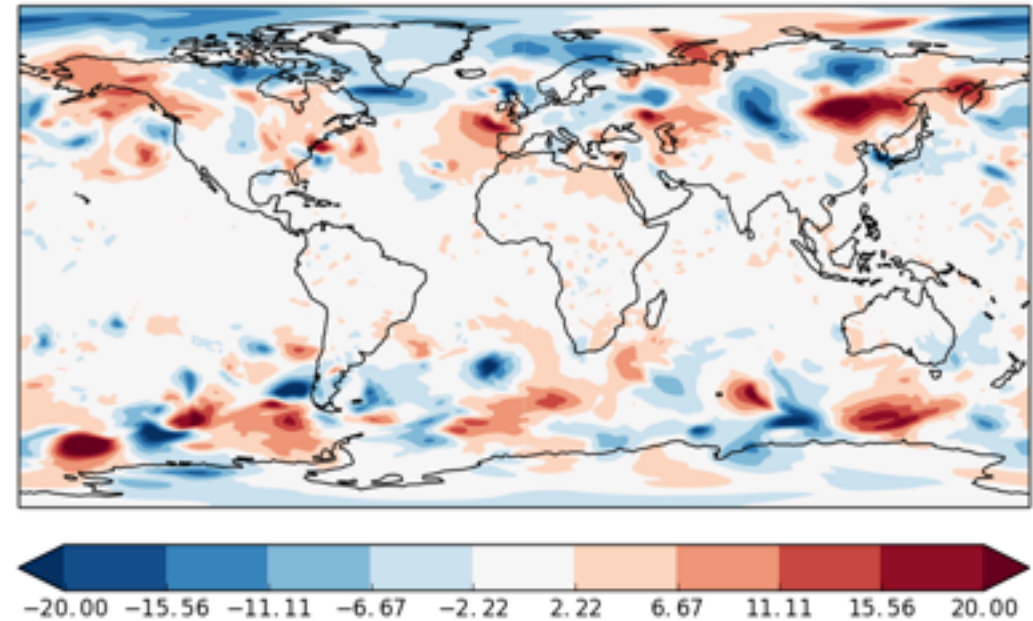
Double precision
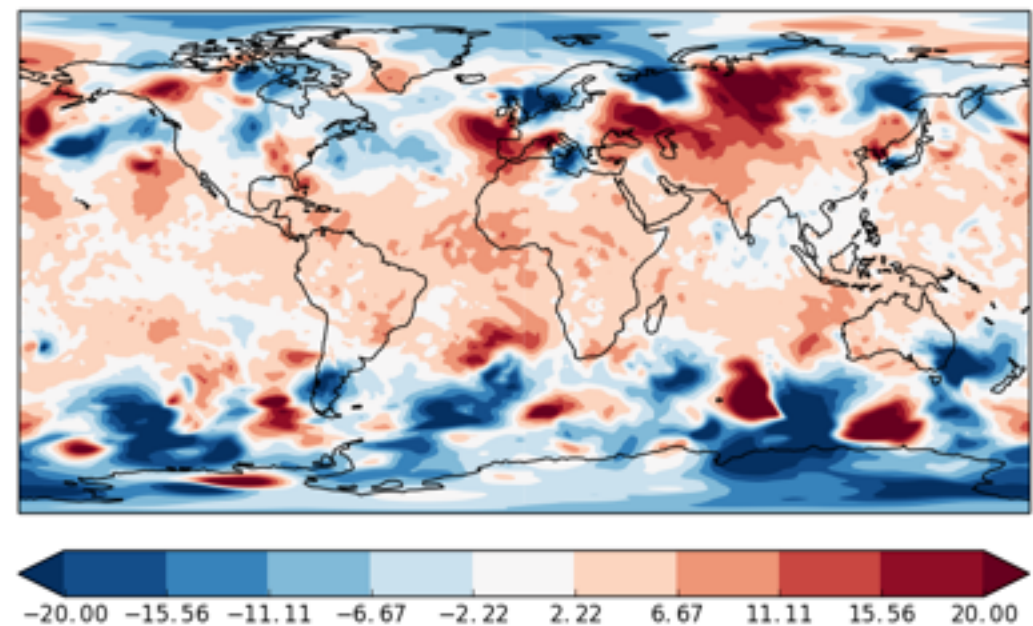
Db - Single precision

Db - 16 significand bits
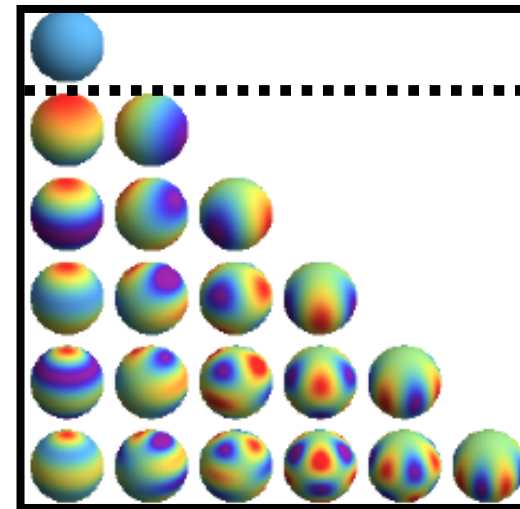
Db - 8 significand bits + …

… double precision zero mode

Norms

What measure do we use to check a model is good?

1. Distance between double and single precision (L2-norm)
    + ECMWF and MeteoSwiss are happy with their single precision code.
    - Quite arbitrary.

2. Ensemble spread from operational forecasts.
    + Designed to capture model uncertainty.
    - Ensembles have initial condition uncertainty, our integrations don't.