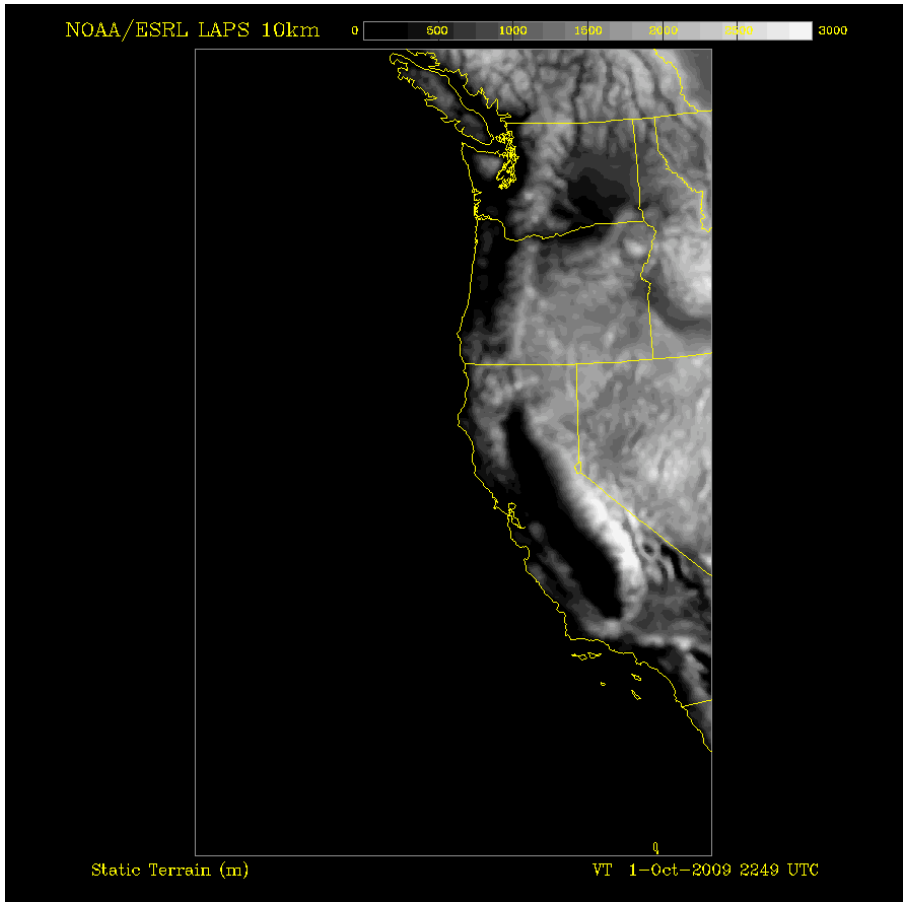
HMT 2009-2010

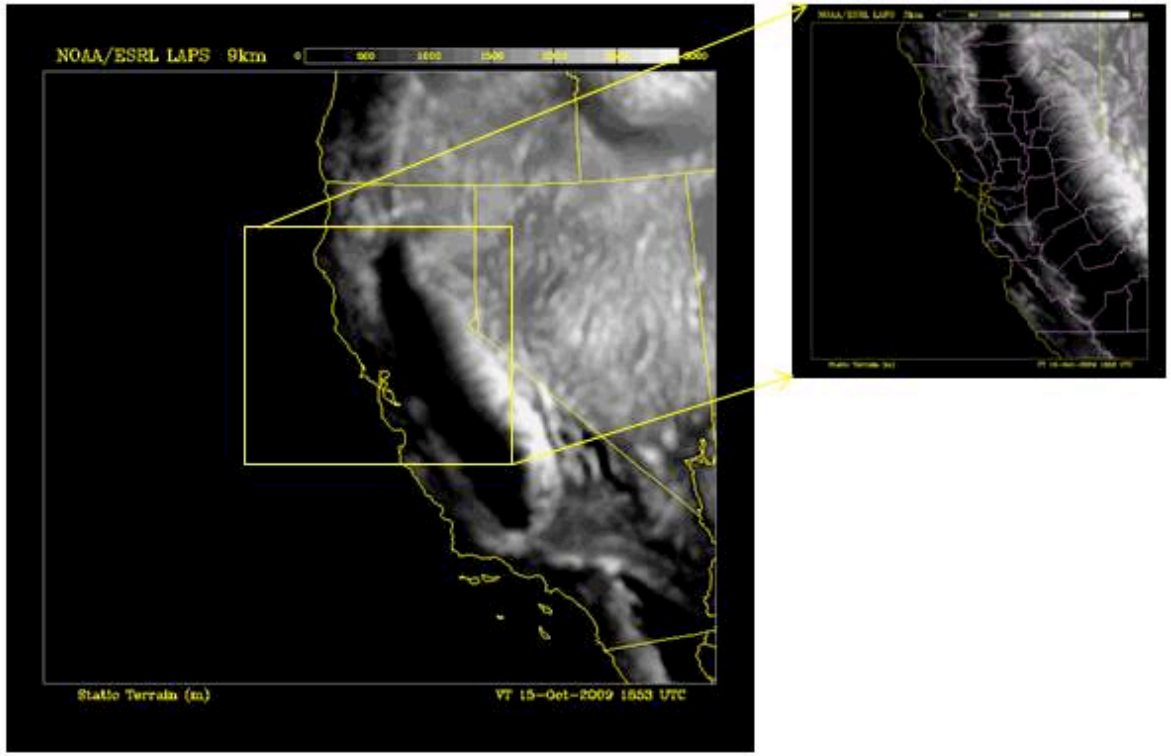
FAB

HIGH-RESOLUTION MODEL RUN FOR PSD's MOISTURE-FLUX FORECASTING TOOL 2009-2010

- Domain extended further north and south compared to the ensemble domain
- 10 km horizontal grid spacing
- Hourly update
- 12-hr forecast
- LAPS initial conditions
- NAM LBCs
- HRRR



EXPERIMENT DESIGN 2009-2010

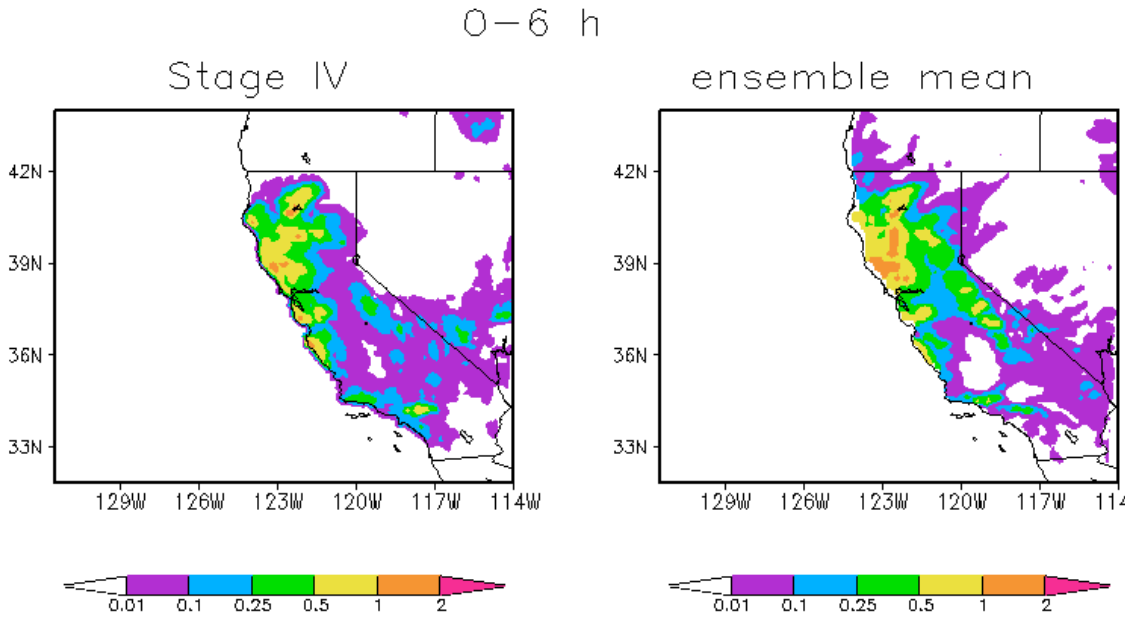


Nested domain:

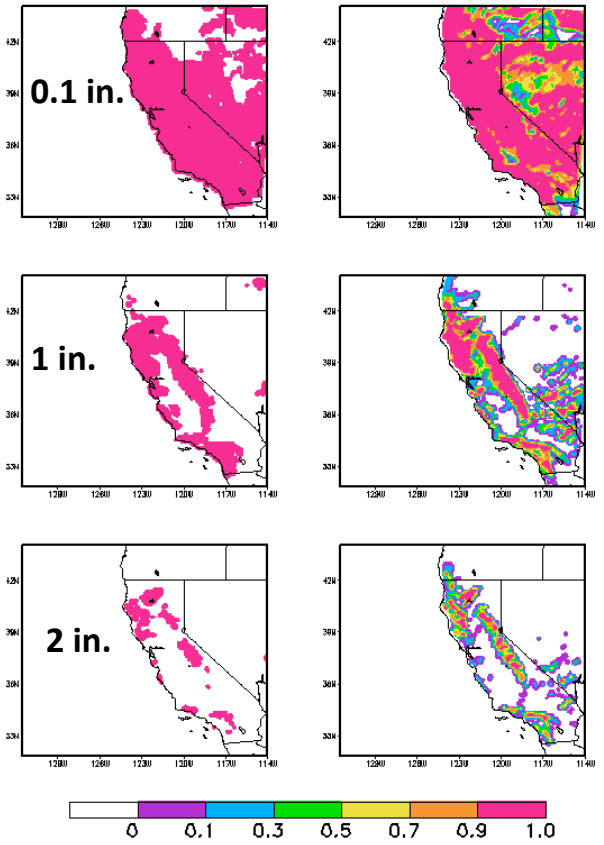
- Outer/inner nest grid spacing 9 and 3 km, respectively,
- 6-h cycles,
- 9 members
- Mixed models, physics and boundary conditions

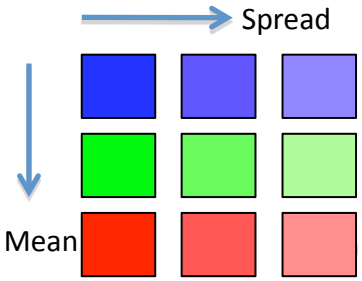
HMT QPF and PQPF

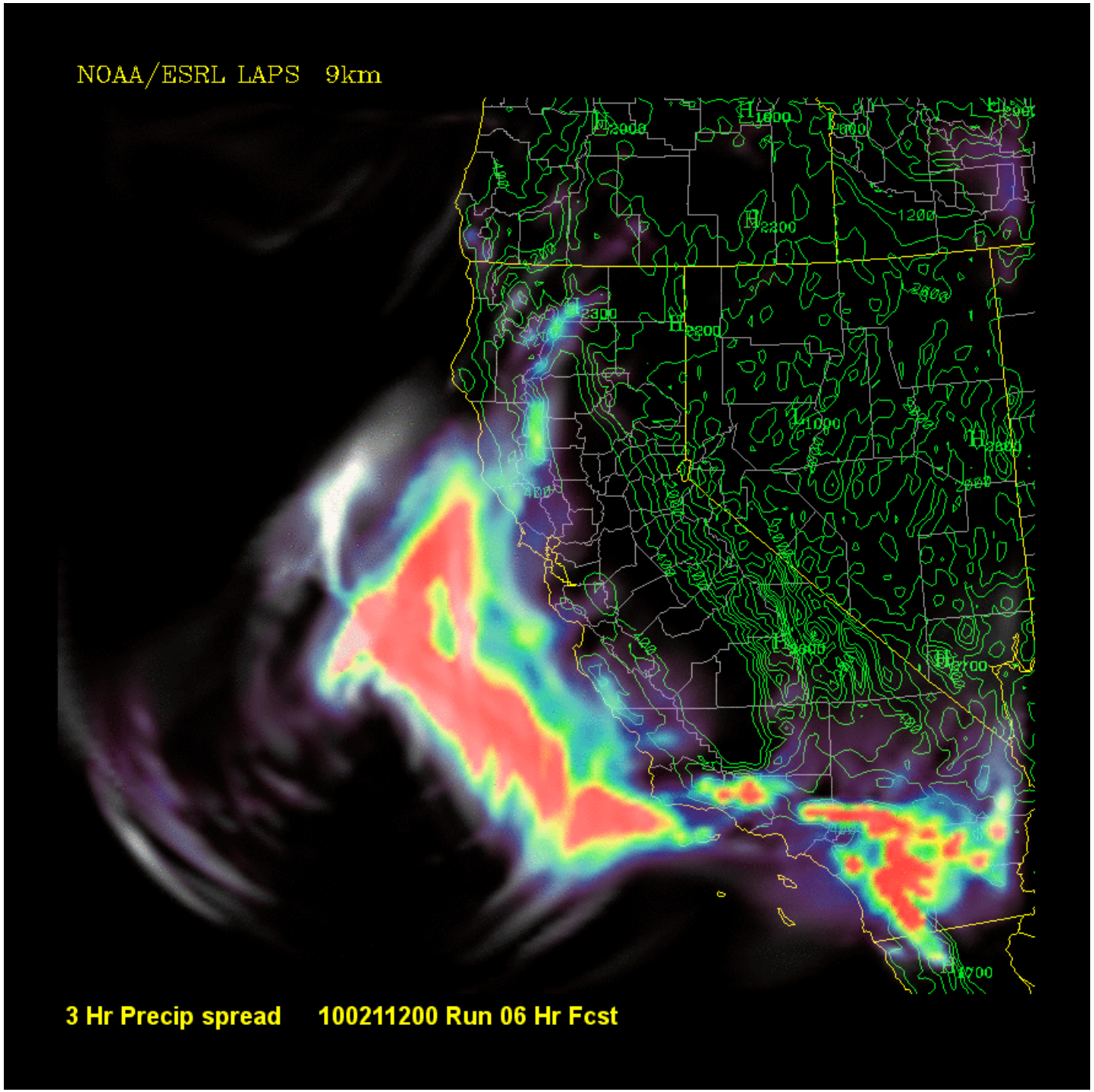
48-hr forecast starting at 12 UTC, 18 January 2010



24-hr PQPF




Spread
Mean


NOAA/ESRL LAPS 9km
3 Hr Precip spread 100211200 Run 06 Hr Fcst

2009-2010 Future Related Activity

- Build training dataset using new configurations. Selected historical IOP cases for heavy precipitation and collect data for current season (Partially finished).

- Linear regression calibration.
  Test other methods (neural network, etc.)

- Verification of 3km data (results will be presented at the upcoming conferences).

- Research studies