Moisture perturbation @412 200 400 Pressure [hPa] 600 800 Resolution 100 m 1000 1.0 500 0.0 0.5 5 250 m Temperature Cloud water RHWater vapour 500 m [K] [%] mixing ratio mixing ratio 1 km $[10^{-3} \, g \, kg^{-1}]$ $[10^{-3} \text{ g kg}^{-1}]$ 4 km 200 Model MONC Pressure [hPa] 400 WRF Kuang (2010) 600 800 1000 -0.5**–**2 10 2 0.0 -10 0 **-4** 0 Ice **Snow** Rain Graupel mixing mixing mixing mixing ratio ratio ratio ratio

 $[10^{-3} \text{ g kg}^{-1}]$

 $[10^{-3} \text{ g kg}^{-1}]$

 $[10^{-3} \text{ g kg}^{-1}]$

 $[10^{-3} \text{ g kg}^{-1}]$