

# Description of the short-term likely benefits of step N°1 in the advocated course for ALARO-10

## ***Microphysics:***

- Better prediction of the distinction between the different types of precipitation reaching the surface (rain, snow, graupel, ...)
- More realistic internal description of violent thunderstorms (though only when of MCC-type)
- Interfacing possibility with the radar data observation operator (without knowing yet the representativity of the data at the 10-km scale)

## ***Turbulence:***

- One more useful output parameter in post-processing (TKE => gusts, PBL height)
- Better description of the turbulent exchanges in mountainous areas (downslope winds, ...), around frontal discontinuities and for stable PBL cases
- One likely way to improve the use of SLHD

## ***Surface:***

- Better description of the local variations of the daily cycle's characteristics
- Small improvement in the interfacing with the satellite radiances' observation operators