

Overarching  
Questions

How do the micro to meso scale  
atmospheric processes control  
global Water and Energy Exchanges ?



- radiation budget
- hydrological cycle
- atmospheric circulations

What controls  
Cloud Phase and Precipitation ?



What controls  
Mesoscale Organization ?



## How will GASS help address these questions ?

- By coordinating projects/activities :
  - Daily cycle precipitation (DCP)
  - Aerosols and precipitation (GAP)
  - Upper tropospheric clouds (UTCC)
  - Land surface temperature, snowpack and precipitation (LS4P)
  - Mesoscale organization of shallow convection (EUREC<sup>4</sup>A)
  - Mesoscale organization of deep convection
  - Cold air outbreaks (COMBLE+)
  - Convective momentum transport and its impact on the tropical circulation (Friction)
  - Air-sea coupling
  
  - Global Cloud Resolving Model simulations (DYAMOND)
  - Coupled models nudging
- Sharing info and facilitating access to relevant model outputs and observations (e.g. how-to's, hackathons, seminars)
- Sharing process-oriented diagnostics and codes (e.g. MCS tracking)
- Organizing workshops that will bridge expertises and communities around key questions
- Connecting to other WCRP partners (e.g. GDAP/GLASS/GHP, CFMIP, WGNE)