

- boundary layer representation in NWP models
- boundary layer parameterizations
- soil moisture models
- evapotranspiration models
- source areas or footprint models (influencing measurements)
- turbulence closure techniques
- surface energy budget over different ecosystems, including tracers/aerosols
- flux scaling issues (local to region, tower to aircraft)
- air pollution modeling (or long range transport of air pollutants)
- coastal fronts
- sea/land breeze circulations
- lake breezes
- gust fronts
- boundary layer convection - horizontal rolls, open/closed cell convection
- urban heat island
- local circulations due to land heterogeneity
- valley/drainage flows
- ocean/atmosphere coupling
- remote sensing of the boundary layer
- in situ observations of the boundary layer
- dust devils
- water spouts
- marine boundary layer
- boundary layers at the poles
- large eddy simulation
- exchange between boundary layer and upper troposphere
- wind-blown soil erosion/sand/snow drift
- nonhomogeneous boundary layers