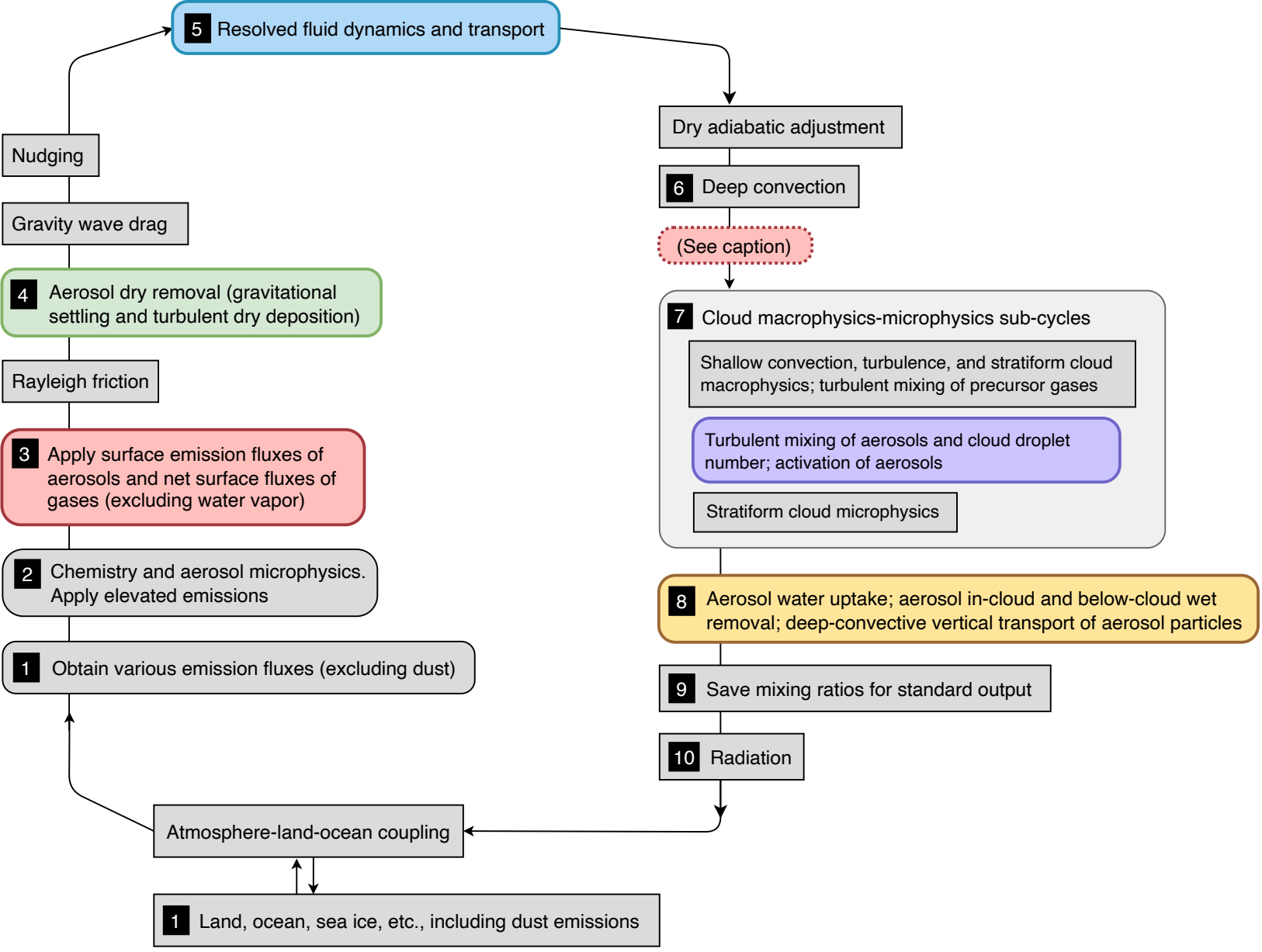
5 Resolved fluid dynamics and transport
Nudging
Gravity wave drag
4 Aerosol dry removal (gravitational settling and turbulent dry deposition)
Rayleigh friction
3 Apply surface emission fluxes of aerosols and net surface fluxes of gases (excluding water vapor)
2 Chemistry and aerosol microphysics. Apply elevated emissions
1 Obtain various emission fluxes (excluding dust)
Dry adiabatic adjustment
6 Deep convection
(See caption)
7 Cloud macrophysics-microphysics sub-cycles
Shallow convection, turbulence, and stratiform cloud macrophysics; turbulent mixing of precursor gases
Turbulent mixing of aerosols and cloud droplet number; activation of aerosols
Stratiform cloud microphysics
8 Aerosol water uptake; aerosol in-cloud and below-cloud wet removal; deep-convective vertical transport of aerosol particles
9 Save mixing ratios for standard output
10 Radiation
Atmosphere-land-ocean coupling
1 Land, ocean, sea ice, etc., including dust emissions