Microphysics wrapper flowchart

Read ICON data

If data 3D

False — True

Chunk data

While $t_i <= t_n$

Call saturation adjustment

Call 2-moment microphysics

Call saturation adjustment

Write q_k and $\Delta q_k|_{\mathrm{process}}$
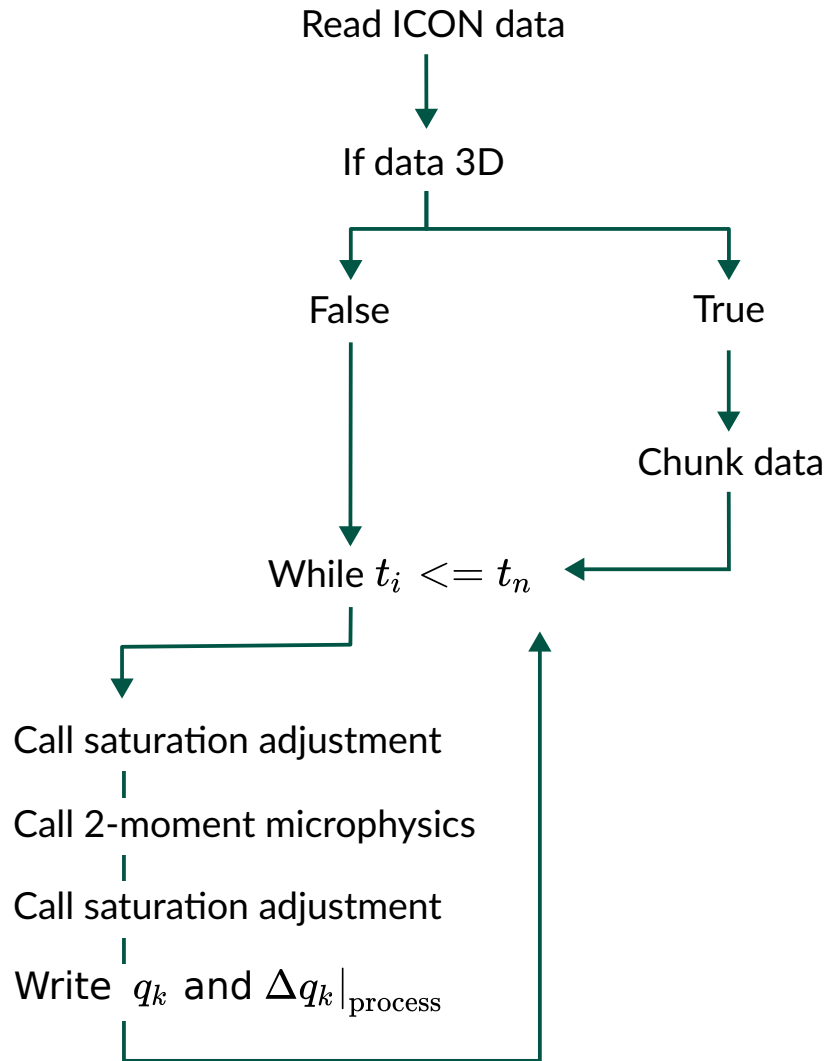
Input data

ICON data must contain:

- Thermodynamic variables (T, p, ρ, w)
- Level coordinates (half levels, full levels)
- Hydrometeor masses and concentrations (q_k, N_k)

Variables

w	Vertical velocity
T	Temperature
ρ	Density
p	Pressure
t_i	Timestep at time i
t_n	Last timestep
q_k	Mass mixing ratio
N_k	Number concentration
$\Delta q_k|_{\mathrm{process}}$	Change of mass mixing ratio due to a process

Index k indicates hydrometeor types: vapour, cloud droplets, cloud ice, rain, snow, graupel, hail