

M1: Absolute difference from the surface

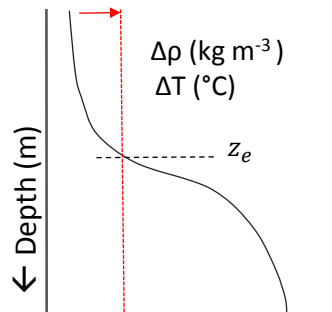
M2: Gradient from the surface

M3: Gradient from the pycnocline

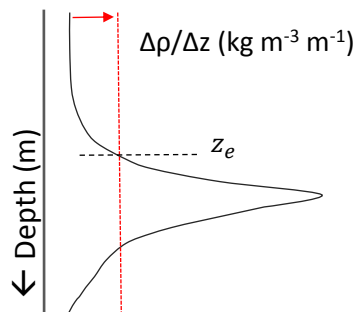
M4: rLakeAnalyzer “meta.depths” function

M5: Modelled turbulence method

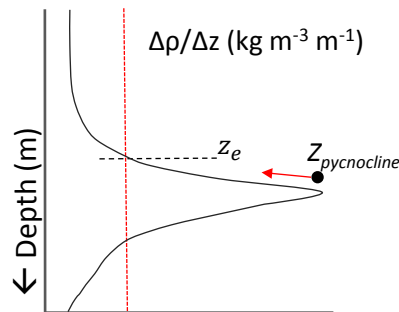
Methods



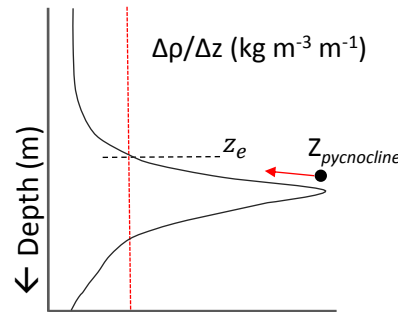
Density (kg m^{-3}) →
← Temp ($^{\circ}\text{C}$)



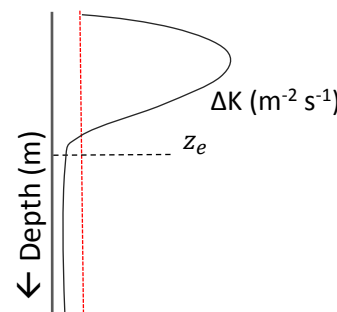
Density gradient ($\text{kg m}^{-3} \text{ m}^{-1}$) →



Density gradient ($\text{kg m}^{-3} \text{ m}^{-1}$) →



Density gradient ($\text{kg m}^{-3} \text{ m}^{-1}$) →



Vertical diffusivity ($\text{m}^2 \text{ s}^{-1}$) →

Thresholds

$\Delta\rho$
(kg m^{-3})
0.025 0.125
0.05 0.15
0.075 0.175
0.1 0.2

$\Delta\rho/\Delta z$
($\text{kg m}^{-3} \text{ m}^{-1}$)
0.025 0.125
0.05 0.15
0.075 0.175
0.1 0.2

ΔK
($\text{m}^2 \text{ s}^{-1}$)
 2×10^{-5} 6×10^{-5}
 3×10^{-5} 7×10^{-5}
 4×10^{-5} 8×10^{-5}
 5×10^{-5} 9×10^{-5}

Water temperature/density profile data

Lake model data