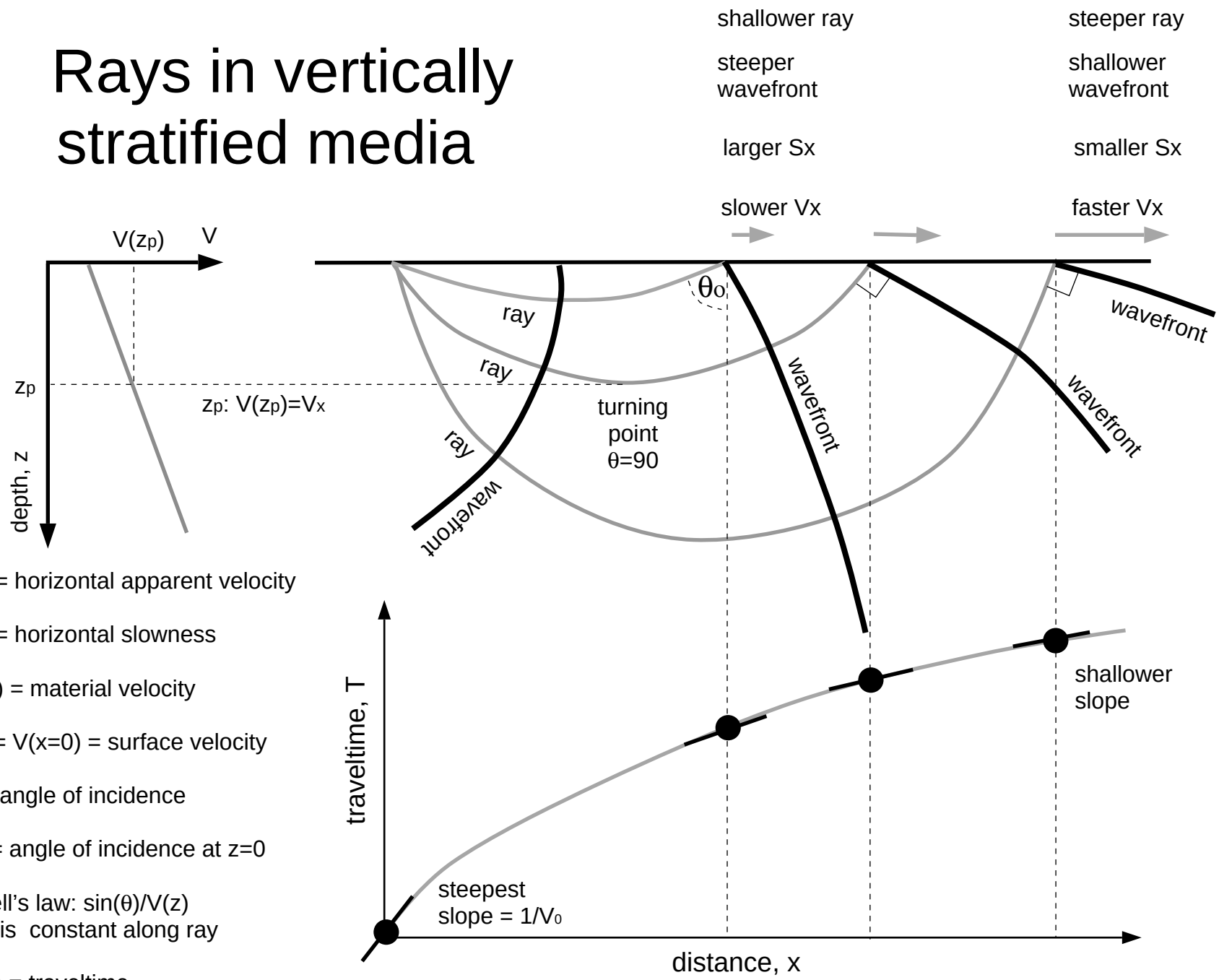
Rays in vertically stratified media



Vx = horizontal apparent velocity

Sx = horizontal slowness

V(z) = material velocity

V_0 = V(x=0) = surface velocity

θ = angle of incidence

θ_0 = angle of incidence at z=0

Snell's law: sin(θ)/V(z) is constant along ray

T(x) = traveltime

$$Sx = dT/dx = 1/Vx = \sin(\theta_0)/V_0 = \text{constant along ray}$$