


























| SLOW -PHYSICS | DYNAMICS | HYD – ADV | HYD – UPDATE | SATAD | FAST – PHYSICS | SLOW -PHYSICS |
|--|--|---|--|--|---|---|
| <i>Radiation, Convection, cloud cover</i> | <i>Wind and Exner pressure</i> | <i>Advection of hydrometeors and tracers</i> | <i>Hydrometeor update</i> | <i>Saturation adjustment</i> | <i>Turbulence and Diffusion, Microphysics</i> | <i>Radiation, Convection, cloud cover</i> |
| $\Delta \vec{v}_{n_{phy}}$ $\Delta \pi_{sp}$ ΔQx_{sp} | $\vec{v}_n^{t+1} = \vec{v}_n^t + \Delta \vec{v}_{n_{dyn}} + \Delta \vec{v}_{n_{phy}}$ $\pi^{t*} = \pi^t + \Delta \pi_{dyn} + \Delta \pi_{sp}$ | $Qx^{t*} = Qx^t + \Delta Qx_{adv}$ | $Qx^{t**} = Qx^{t*} + \Delta Qx_{sp}$ | $\pi^{t**} = \pi^* + \Delta \pi_{satad}$ $Qx^{t***} = Qx^{t**} + \Delta Qx_{satad}$ | $\Delta \vec{v}_{n_{phy}}$ $\pi^{t+1} = \pi^{t*,*} + \Delta \pi_{fp}$ $Qx^{t+1} = Qx^{t***} + \Delta Qx_{fp}$ | $\Delta \vec{v}_{n_{phy}}$ $\Delta \pi_{sp}$ ΔQx_{sp} |
| $t_{step} = 1$  |  |  |  |  |  | |
| $t_{step} = t_{dyn}$ |  | | | | | |
| $t_{step} = t_{adv}$ |  |  |  |  |  | |
| $t_{step} = t_{dyn}$ |  | | | | | |
| $t_{step} = t_{slowphys}$ |  |  |  |  |  |  |
| $t_{step} = t_{dyn}$ |  | | | | | |
| $t_{step} = t_{adv}$ |  |  |  |  |  | |