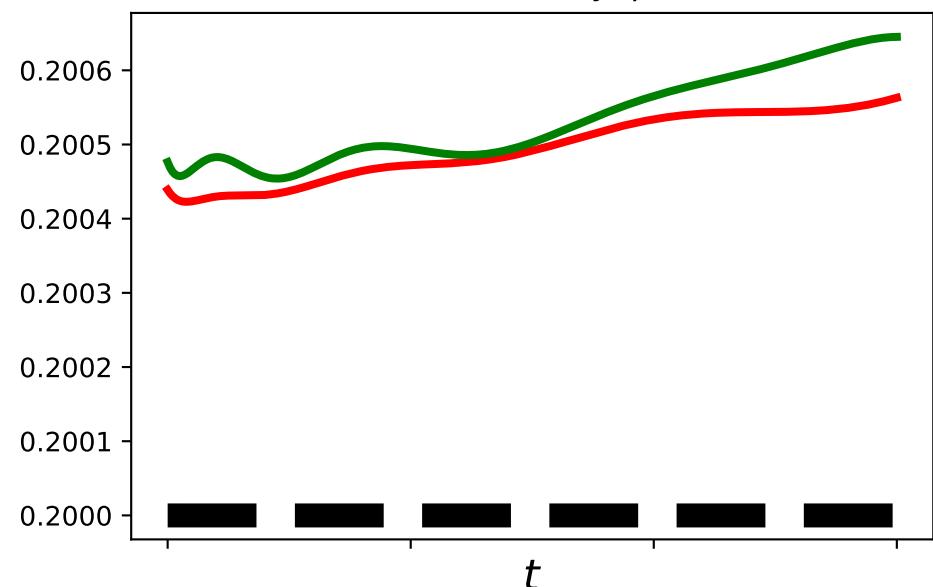
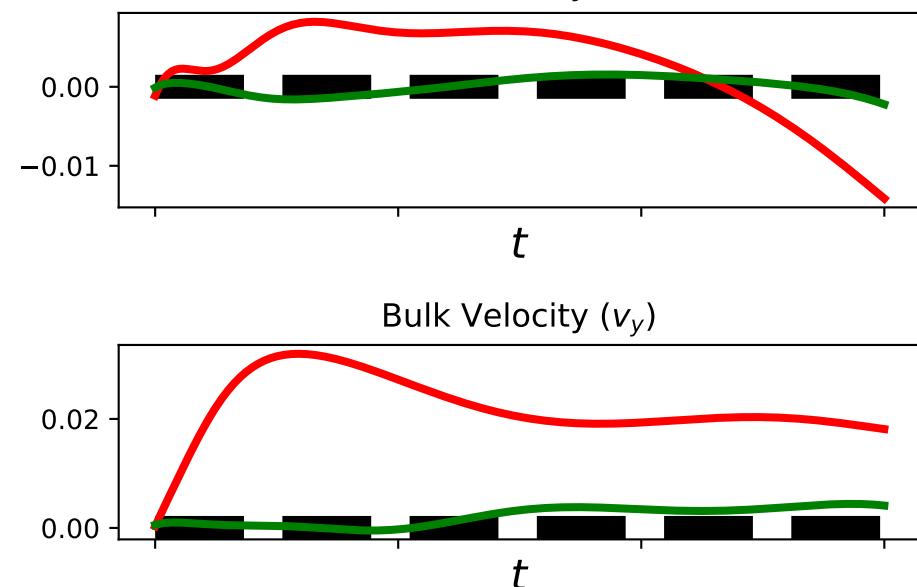


# Physical Quantities Trained for 5000 epochs

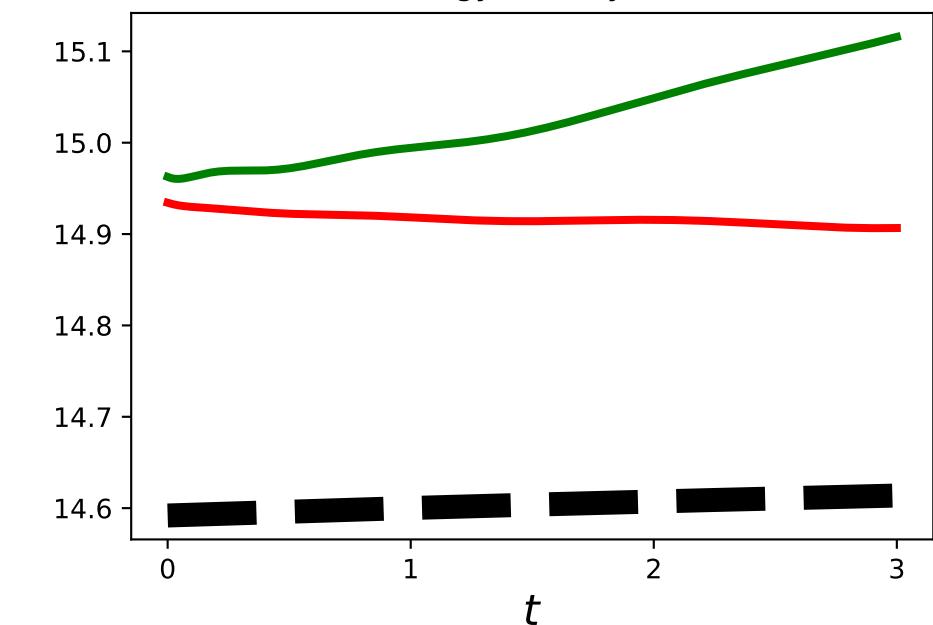
Mass Density ( $\rho$ )



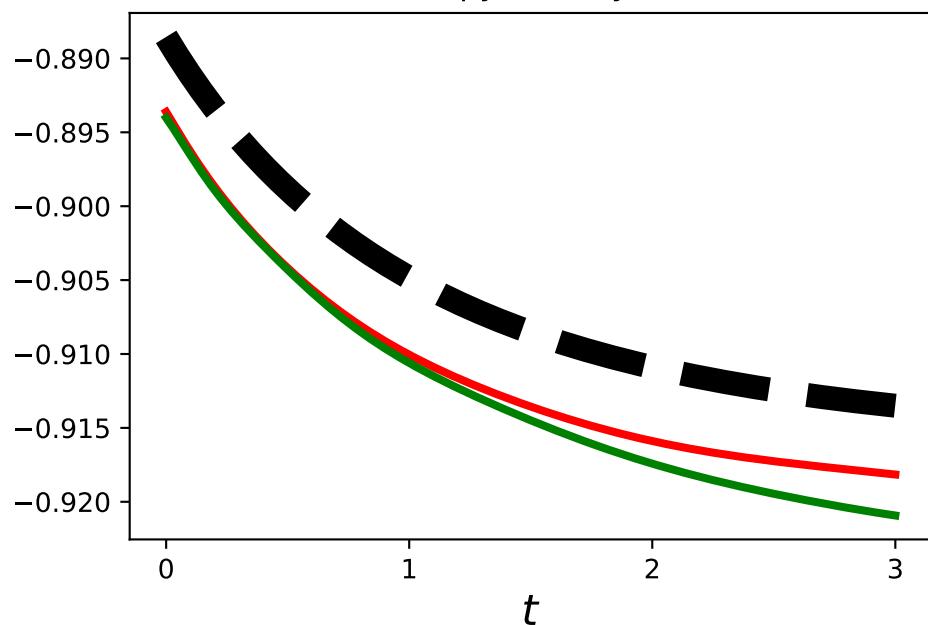
Bulk Velocity ( $v_x$ )



Energy Density ( $E$ )



Entropy Density ( $S$ )



■ Target    — opPENN    — PINN (ours)