

Validation. SemiLag2(0.8) for  $\vec{u}$ ,  $100 \times 100$  grid. SemiLag2(0.8) for  $\rho$ , total mass : 11.49,  $t = 9.470$ ,  $\Delta t = 1\text{e-}04$ ,  $a = 0.5$ .

