

Figure 1: Comparison of the analytic solution (—) and numerical solution with  $\Delta x = 100/2^{11}m$  (•) for the soliton problem at  $t = 50s$  for all methods.

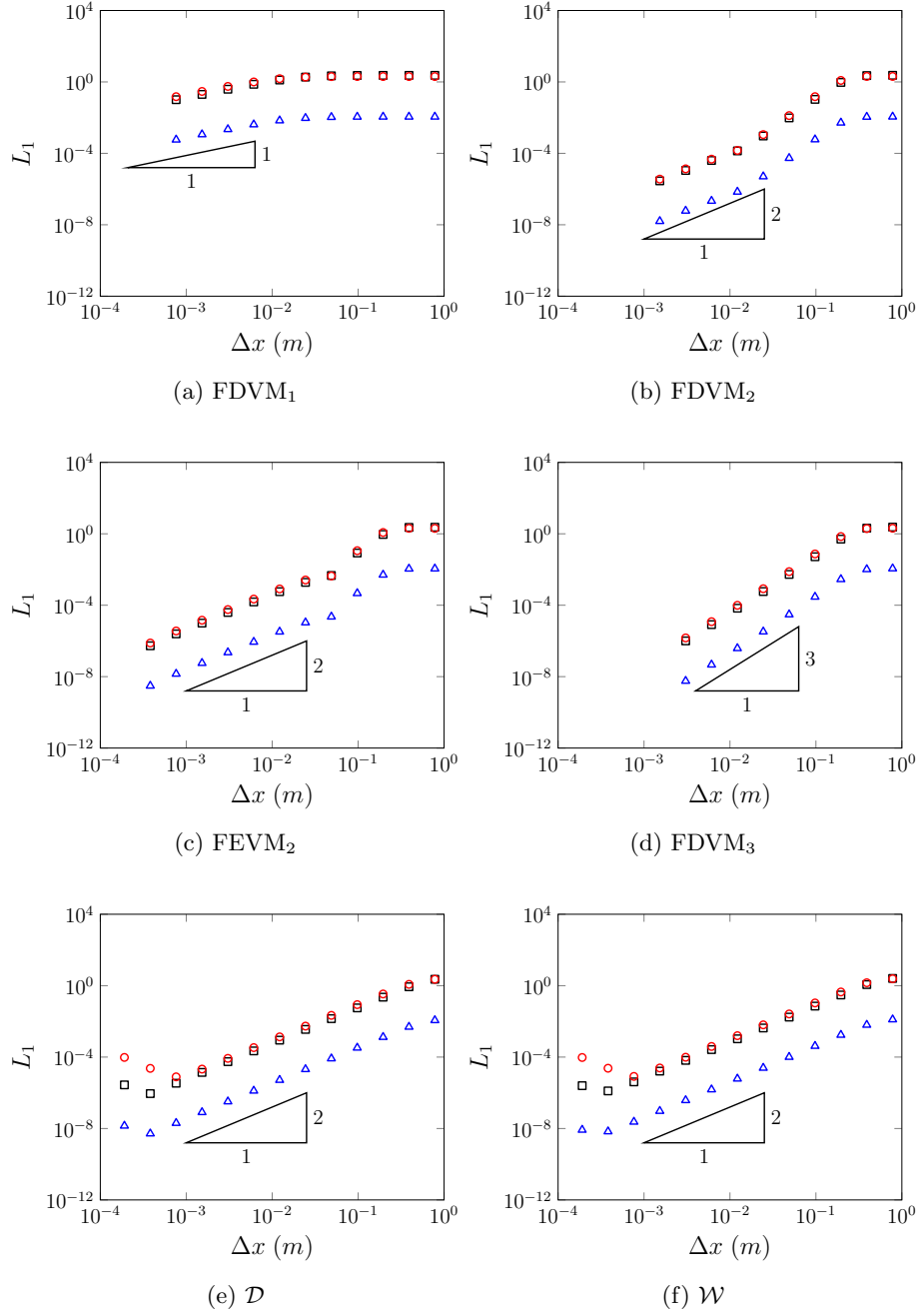


Figure 2: Convergence plots as measured by the  $L_1$  norm for  $h$  ( $\triangle$ ),  $u$  ( $\square$ ) and  $G$  ( $\circ$ ) for the soliton problem for all methods.

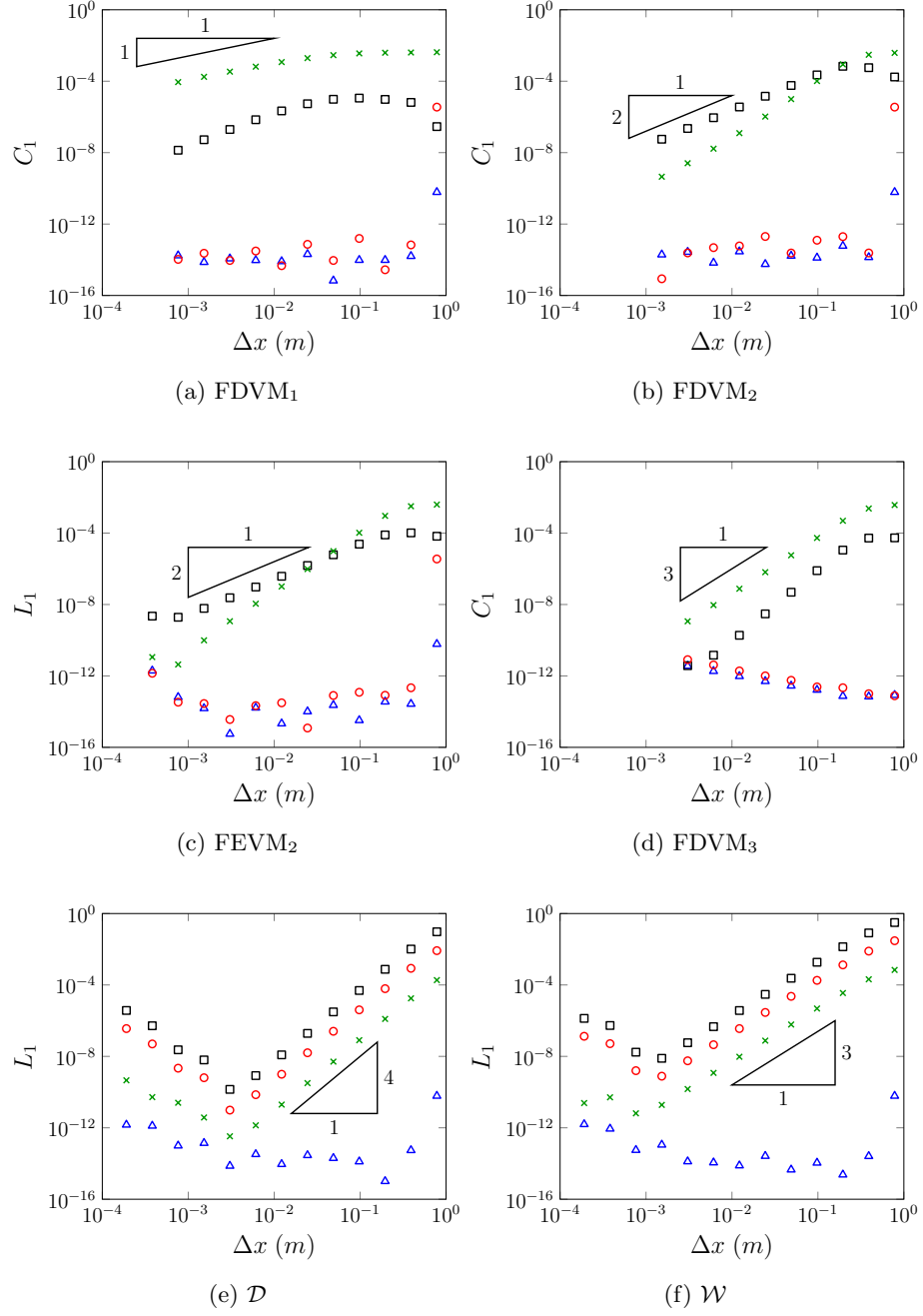


Figure 3: Conservation plots as measured by  $C_1$  for  $h$  ( $\triangle$ ),  $uh$  ( $\square$ ),  $G$  ( $\diamond$ ) and  $\mathcal{H}$  ( $\times$ ) for the soliton problem for all methods.

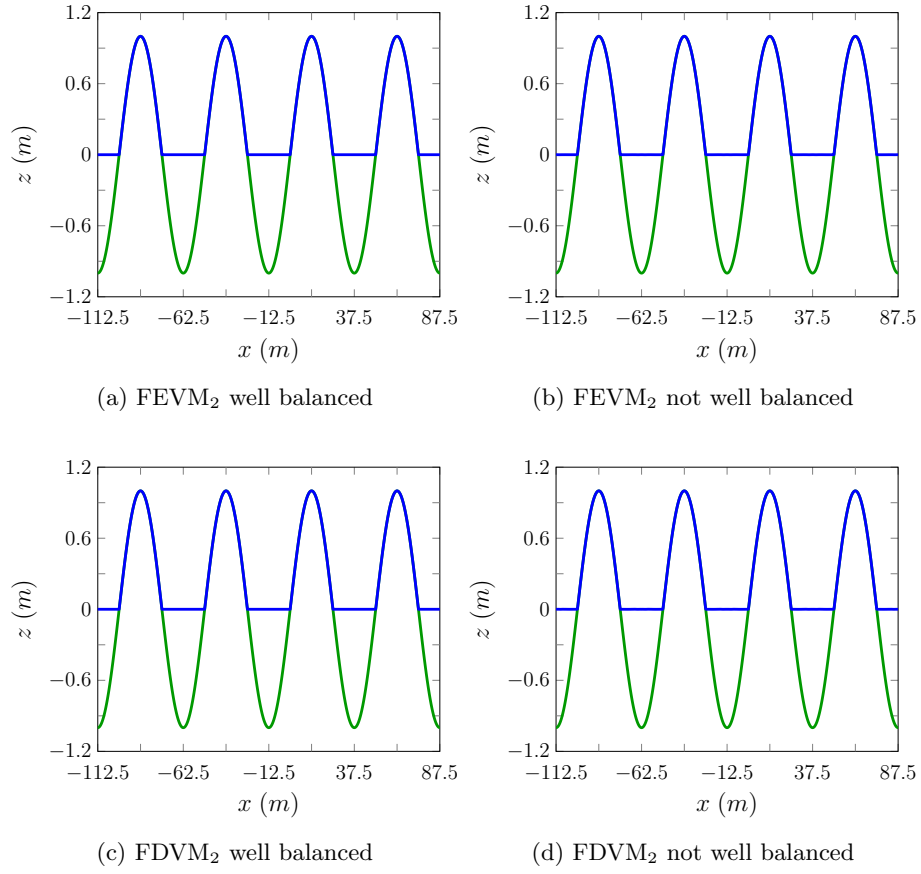


Figure 4: Comparison of the analytic solution (—) and numerical solution with  $\Delta x = 100/2^{10}m$  (—) for the lake at rest problem at  $t = 10s$  for all methods.

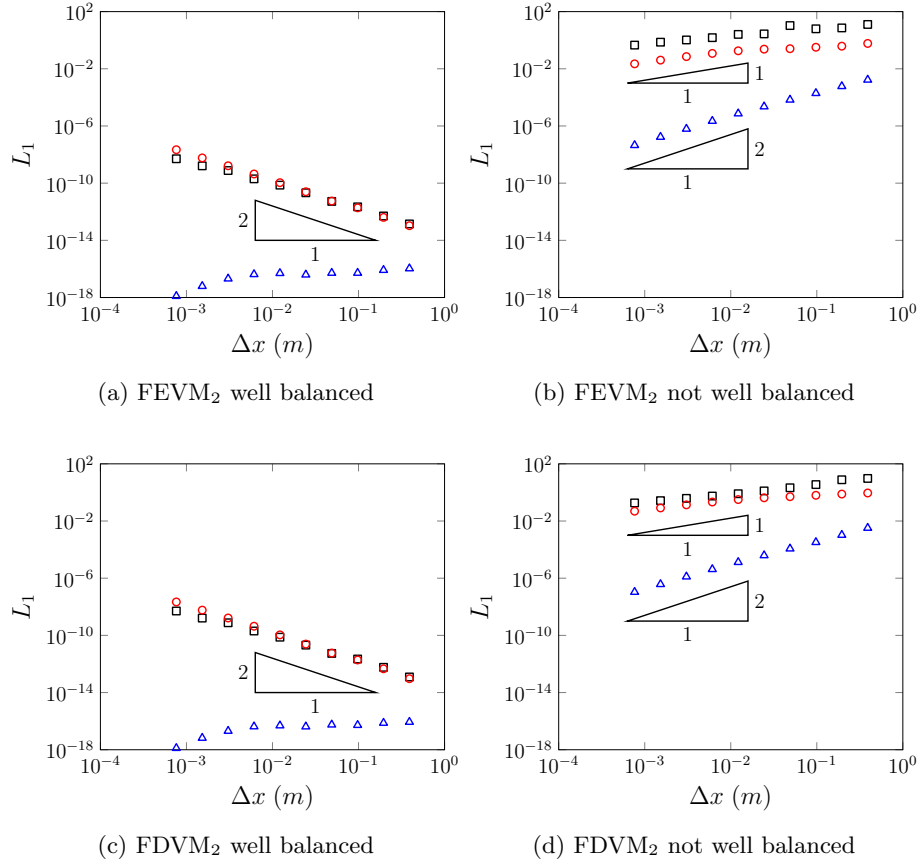


Figure 5: Convergence plots as measured by the  $L_1$  norm for  $h$  ( $\triangle$ ),  $u$  ( $\square$ ) and  $G$  ( $\diamond$ ) for the lake at rest problem at  $t = 10s$  for all methods.

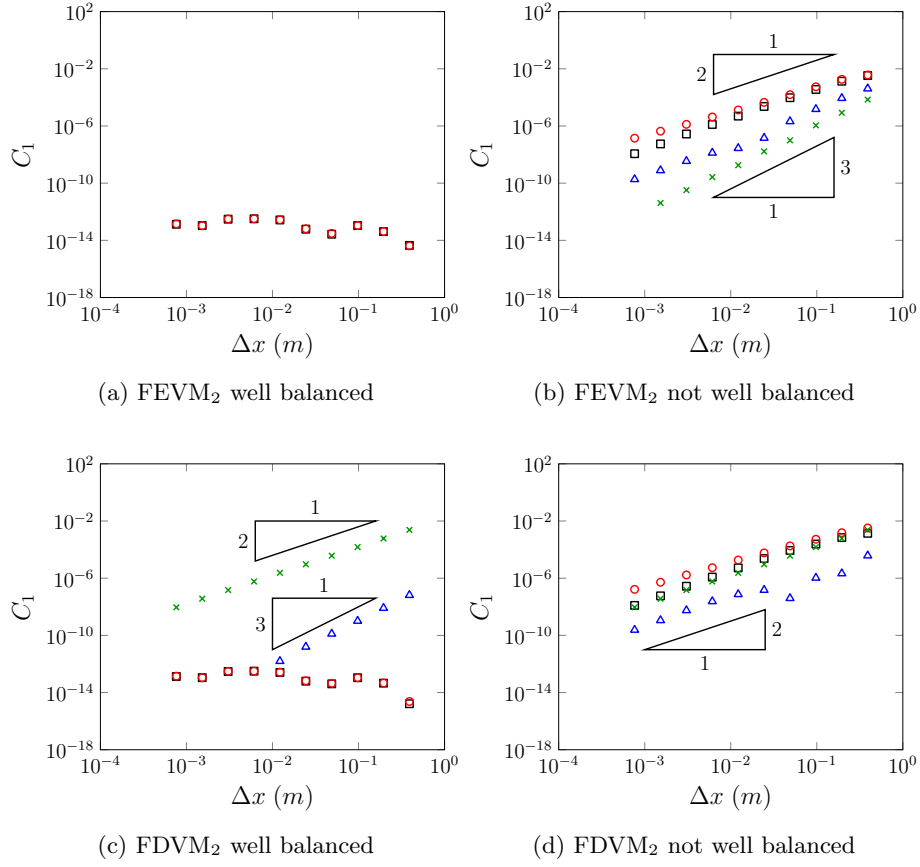


Figure 6: Error in conservation plots as measured by the  $C_1$  norm for  $h$  ( $\triangle$ ),  $u$  ( $\square$ ) and  $G$  ( $\diamond$ ) for the lake at rest problem at  $t = 10s$  for all methods.