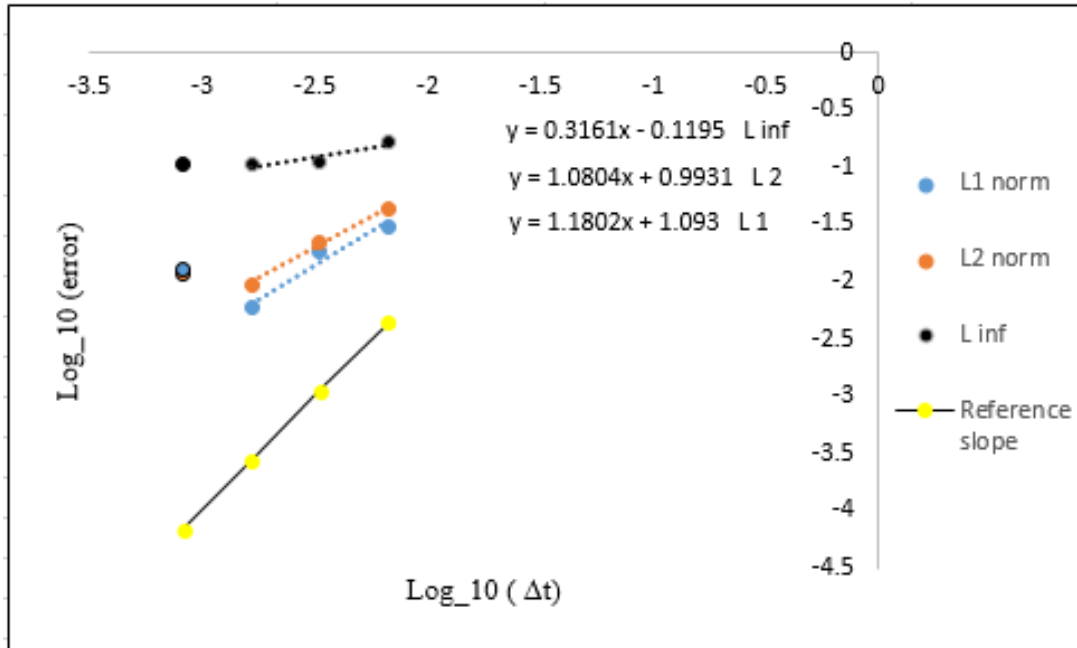


(a) Log-Log plot of Pressure Convergence rate when second order approximation to  $\phi^{n+1}$  was used.



(b) Log-Log plot of Pressure Convergence rate when no approximation to  $\phi^{n+1}$  was used.

Figure 6. 17: Log-Log plots of Pressure error convergence for  $Pm\ 2$  on domain:  $[-1, 1]^2$  at time 1 with  $CFL = 0.1$ . Subplot (a) shows the convergence where second order approximation to  $\phi^{n+1}$  ( $2\phi^n - \phi^{(n-1)} \sim \phi^{n+1}$ ) was used whereas (b) shows the convergence where no approximation to  $\phi^{n+1}$  was used.