

## Assignment 03

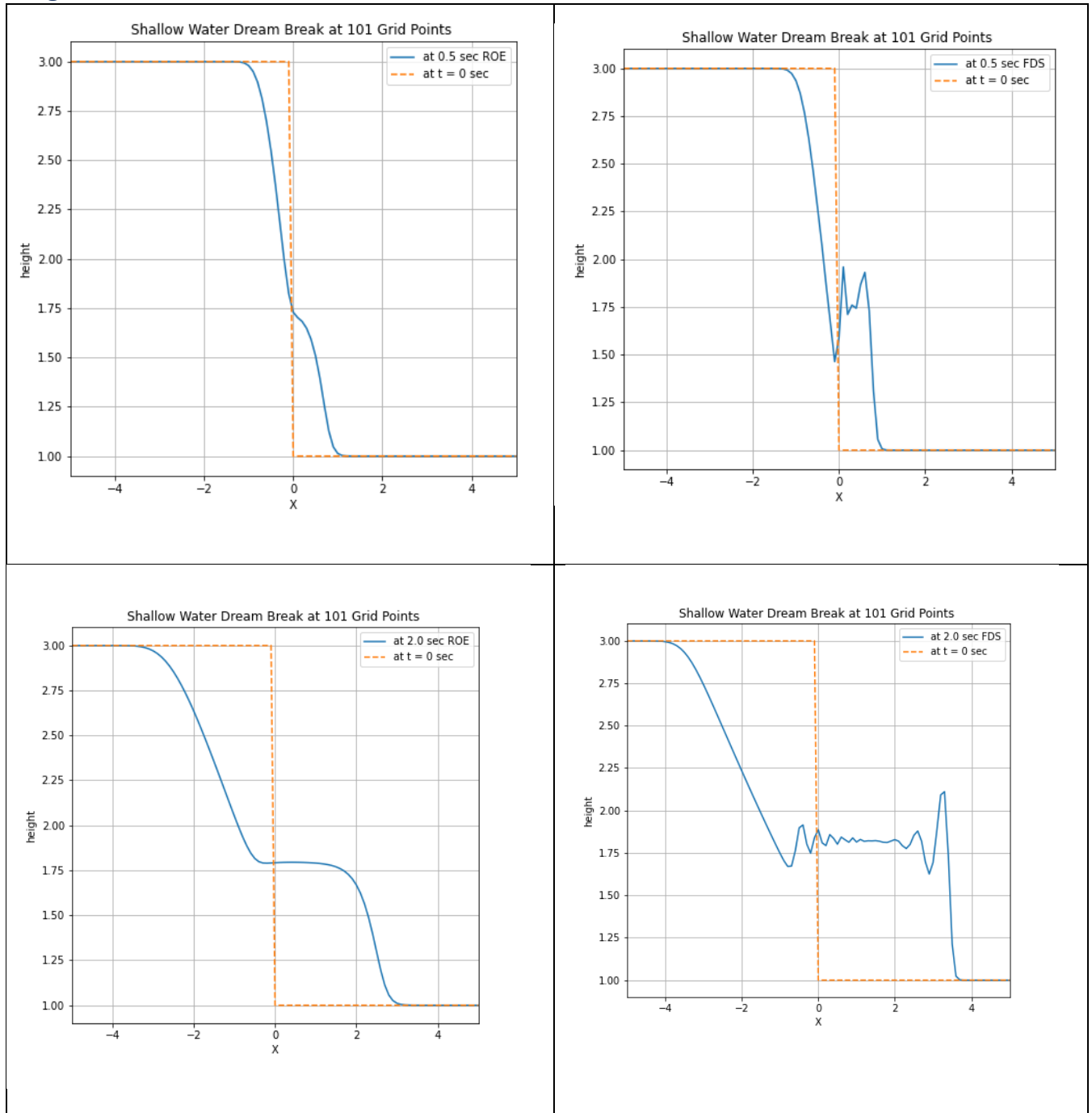
M Vishnu Sankar  
18B030013

Note: Kindly open the code in google Collab

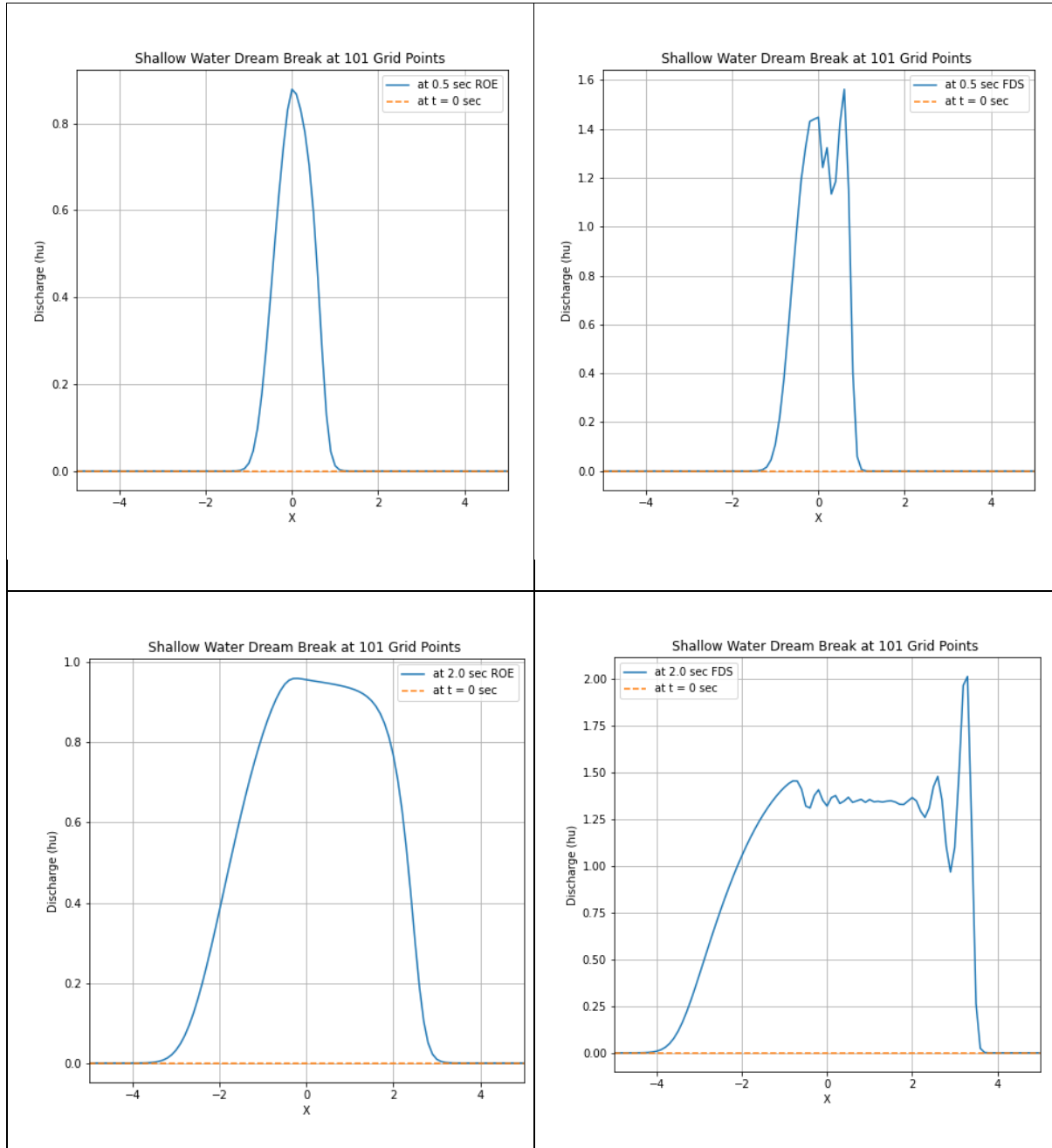
### Shallow Water Dam Break Problem | 101 Grid Points

FDS stands for Flux Difference Splitting

#### Height



## Discharge

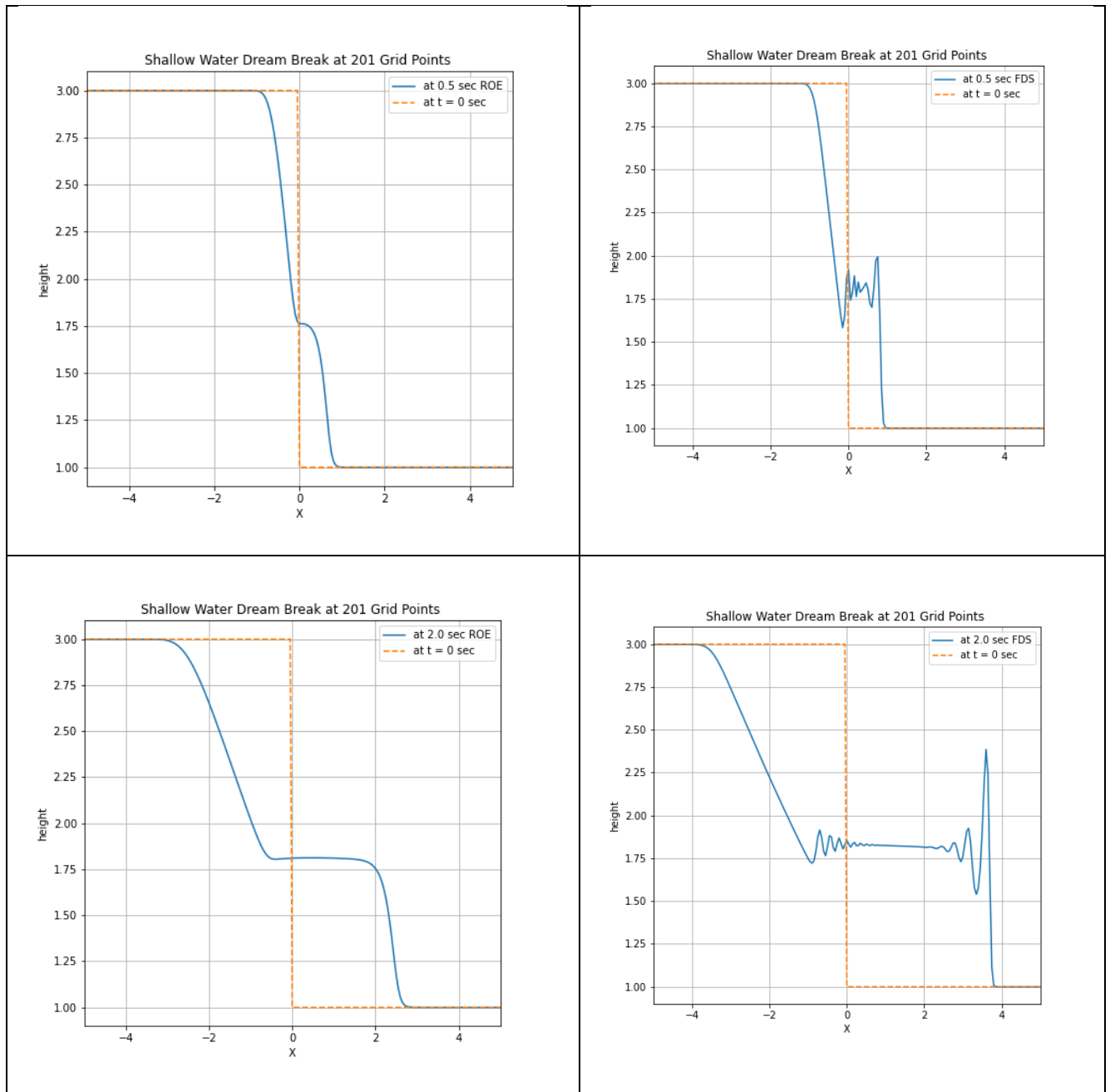


### Observation:-

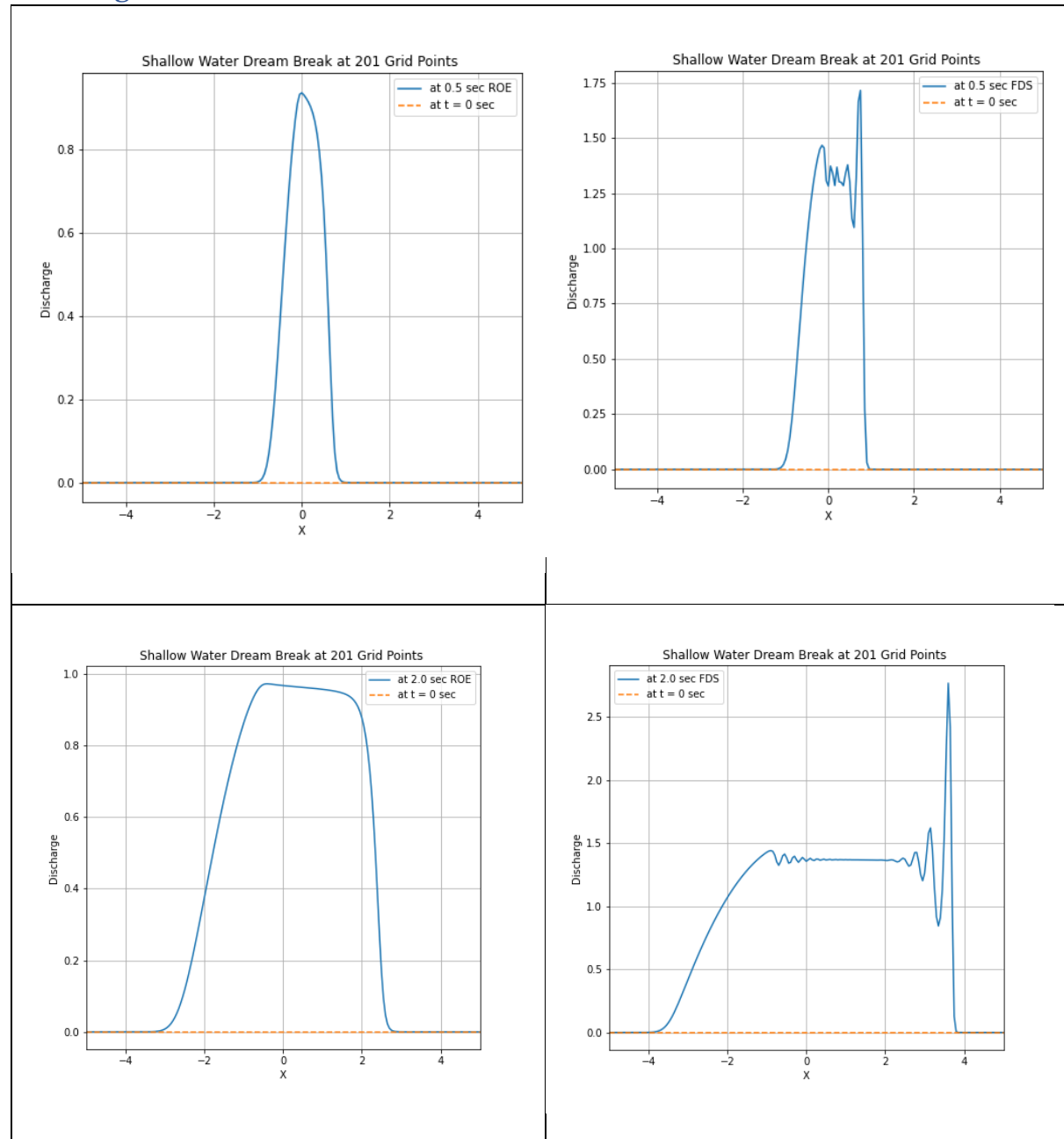
First order method gives a very diffused and inaccurate value. Second order scheme gives a more accurate value but has lot of oscillations in it, although the mean of the oscillations is zero.

## Shallow Water Dam Break Problem | 201 Grid Points

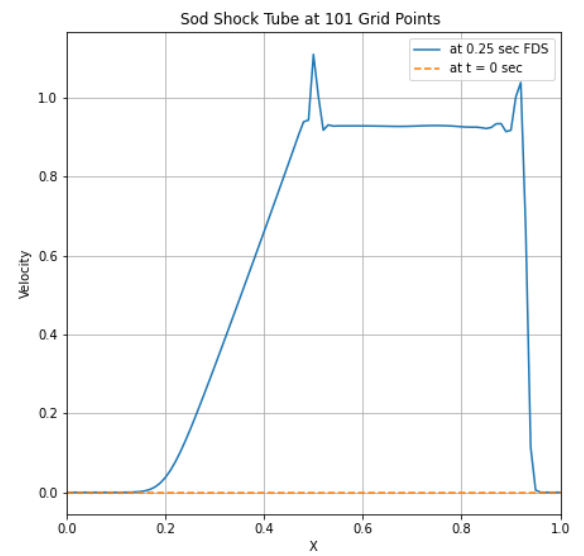
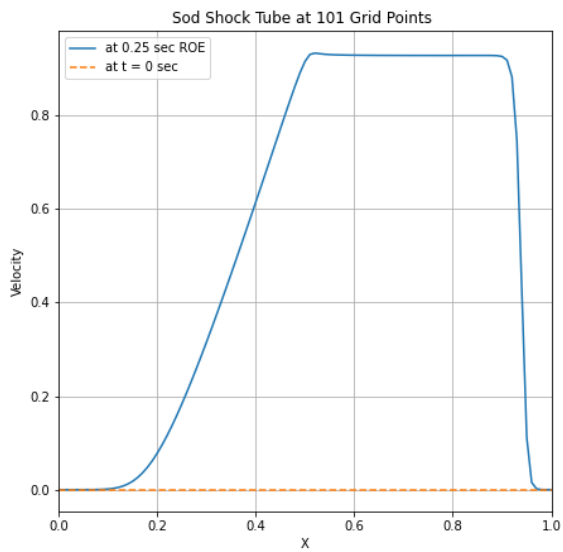
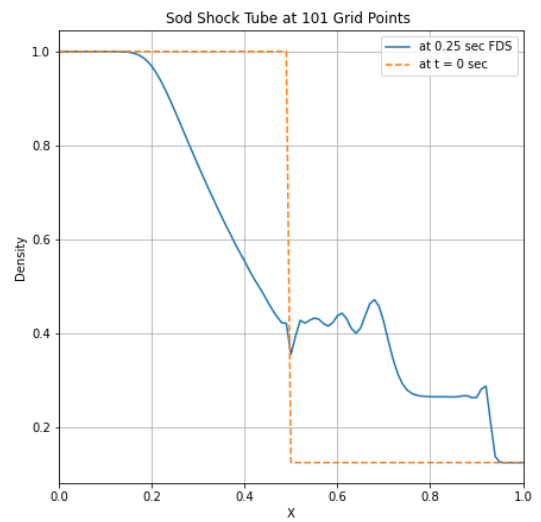
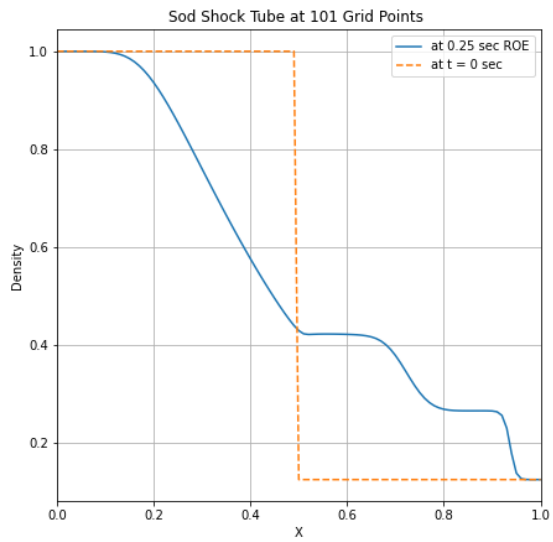
### Height

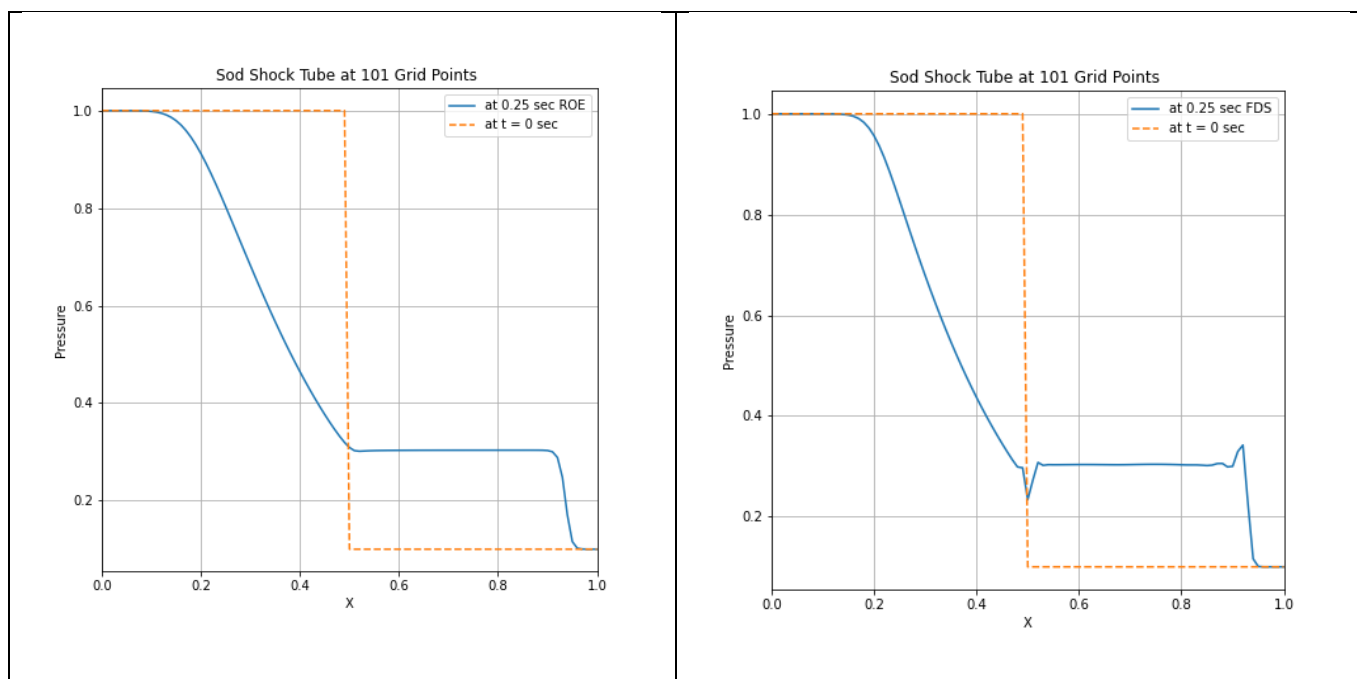


## Discharge



## Euler Shock Tube Problem | 101 Grid Points





### Euler Shock Tube Problem | 201 Grid Points

