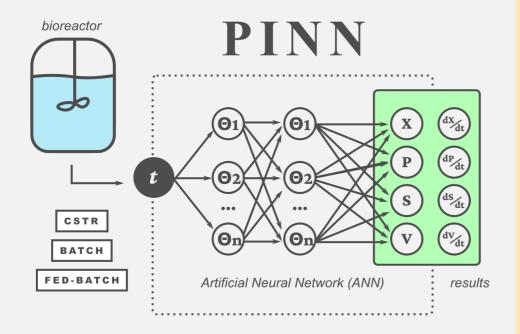
## **Biorreactor Simulation**

lactic acid production by L. casei



### Tests



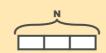
#### NONDIMENSIONALIZATION

time, volume, biomass, lactic acid, lactose



#### LOSS WEIGHTS

volume, biomass, lactic acid, lactose



NUMBER OF LAYERS



NUMBER OF NEURONS

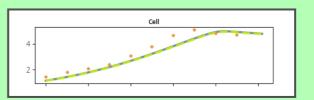


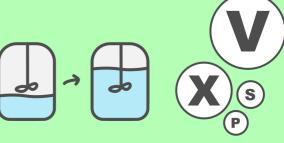
#### COMPARISON

Compare PINN results with numerical and experimental

# Findings

Batch simulation show great results





Loss weights and nondimensionalization of **volume and biomass** concentration are the most relevant variables and show great influence in results