The Simulation Loop

- Algorithm simulation loop(T,dt_min,dt_max,fps)
  - T_left = T
  - while T_left > 0 do
    - dt_wanted = 1 / fps
    - dt_left = dt_wanted
    - while dt_left > 0 do
      - dt_adaptive = min(dt_left, compute_step_size(dt_left));
      - dt = min(dt_max,max(dt_min, dt_adaptive)
      - compute_time_step(dt)
      - dt_left = dt_left - dt
    - end
    - draw frame
    - T_left = T_left - dt_wanted
- end

- Notes
  - compute_step_size
    - This is a simulation specific function that will try and estimate and adaptive time step size. For instance using a CFL condition or some time integration error measure to reduce/enlarge the step size
  - compute_time_step
    - This is a simulation specific function that will advance the state of the simulation system with the specified time step.

How to make matlab output