

The project that I propose is using the 2D Navier-Stokes Equations to solve the pressure imparted on train cars. For example, we can test the flow for a single rectangle to make sure that the system and the boundary conditions work correctly. This can also be done with creating a control volume, allowing the system to be solved analytically for the first instance. From here, I propose creating another rectangle with a variable spacing between the other so we can see how the distance of one rectangle from the other effects the pressure that it receives. This would be comparable to the pressure exerted on the second car on a train.