

Week 3: Simulation

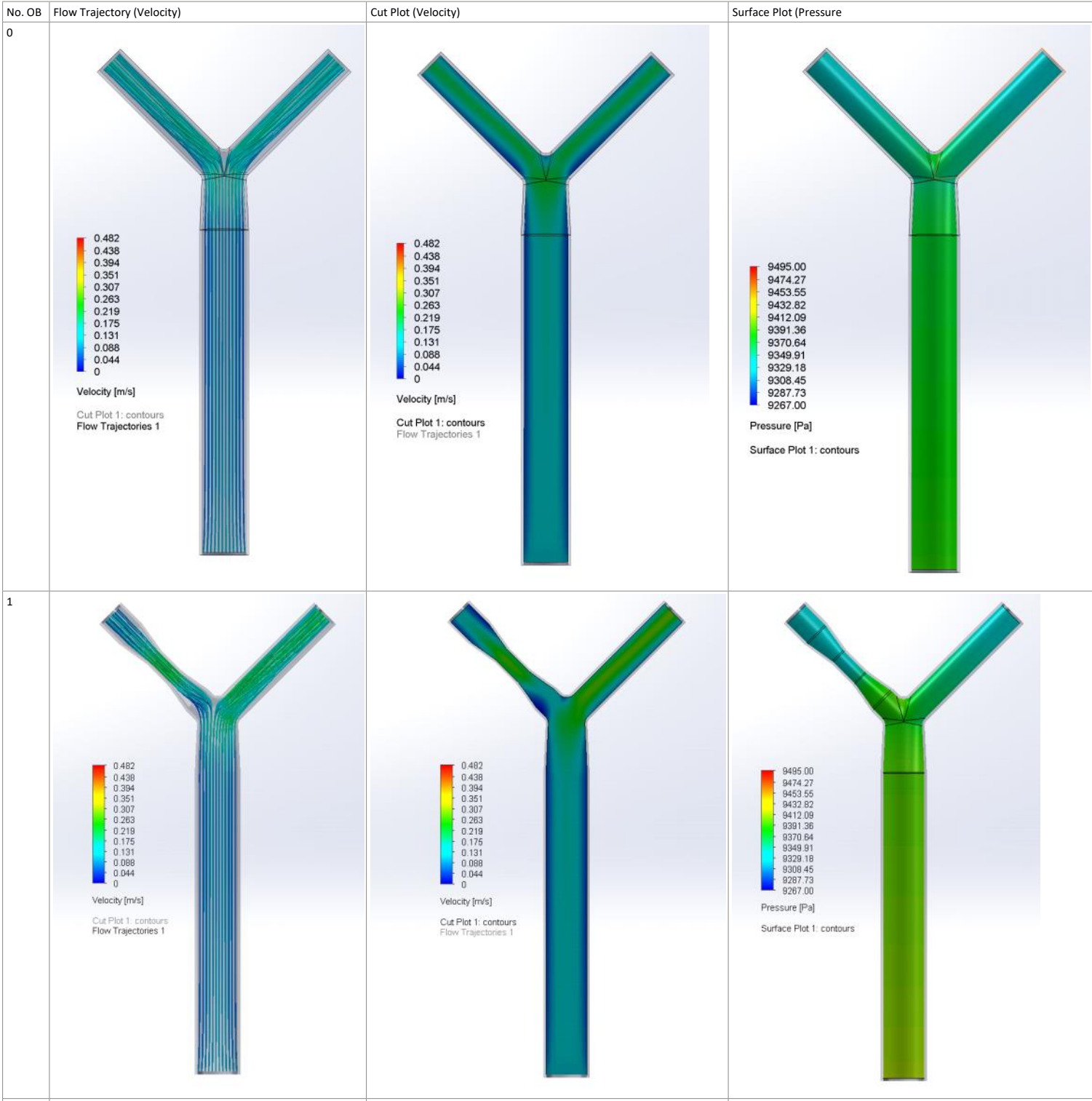
Tuesday, September 13, 2022 10:18 AM

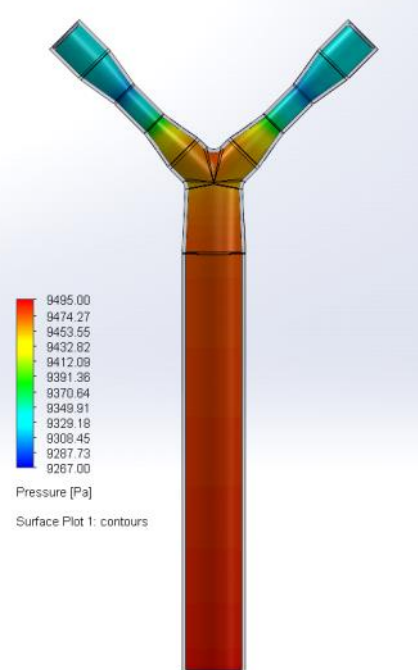
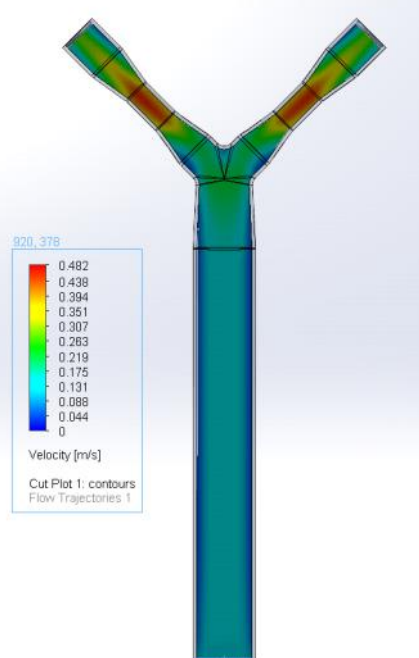
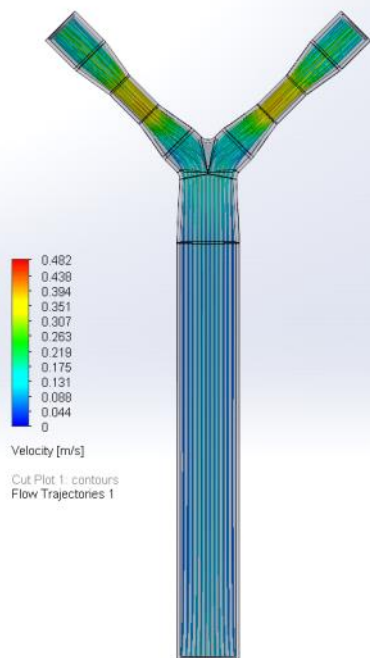
Objective: I plan to be able to simulate the blood flow in at least one model.

I learned about all the different types of simulation in SOLIDWORKS

Table 1: Carotid artery flow properties

|  |                |
|--|----------------|
| Common carotid artery diameter                               | 8 mm [1]       |
| Internal carotid artery diameter                             | 5 mm [1]       |
| External carotid artery diameter                             | 5 mm [1]       |
| Flow rate into common carotid artery                         | 320 ml/min [2] |
| Pressure at outlet of external and internal carotid arteries | 70 mmHg        |
| Carotid artery luminal surface roughness                     | 10 μm [3]      |
| Yield stress of whole blood                                  | 14.4 mPa [4]   |
| Body temperature   | 37° C          |





# Week 4: More Simulation and Tech Memo

Tuesday, September 20, 2022 6:40 PM

Objective: I plan to at least fill out the planning template, find sources, and start make relevant figures and simulations for the paper.