

I'm studying the velocity profile in one artery of approximately 13 millimeters of diameter and 7 cm of length and my problem is that I don't have enough points in the cross-section of the artery to obtain a physical velocity profile. I have attached figures to explain the problem.

Figure 1 (left) shows the magnitude of velocity that I obtain in the AP/IS plane at time 5/20. Figure 1 (right) is the same thing but on Arterys. I marked out the zone of interest in red. I feel like on Arterys there is more detail (i.e more points) that are not encoded on the velocity file that I have.

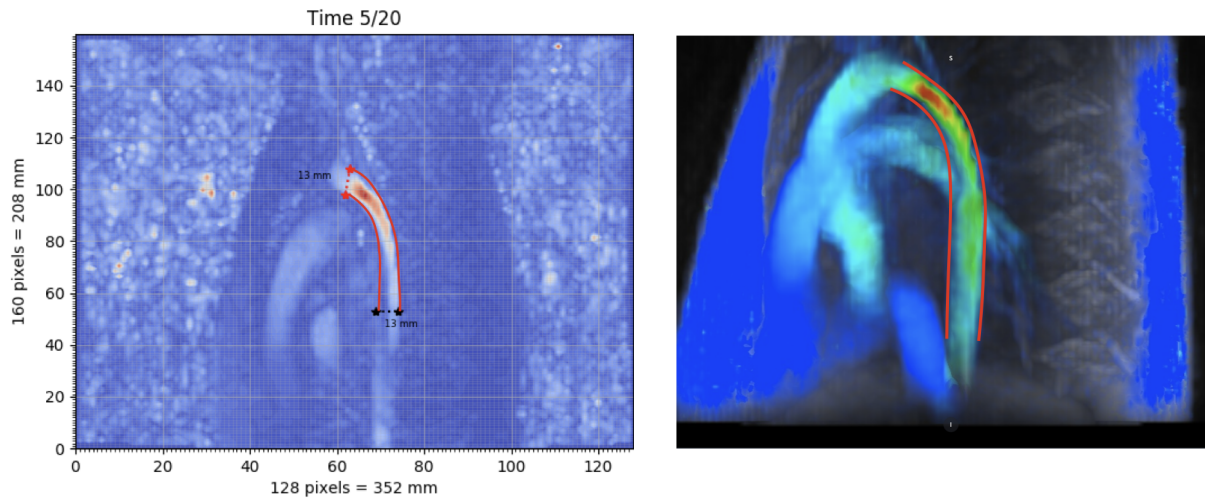


FIGURE 1 – Left : magnitude of velocity at time 5/20. Right : screenshot from Arterys at time 5/20 in the same plane.

Figure 2 is a zoom of figure 1 around the zone of interest. The grid corresponds to the pixels which means that at each point of the grid I have access to the velocity. As you can see on this figure, in the x-direction I only have 5 pixels for 13 mm, which seems not enough to access a physical velocity profile.

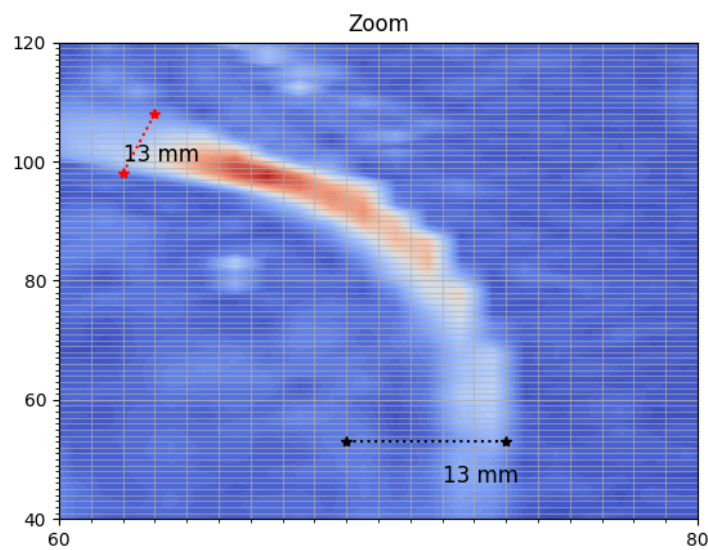


FIGURE 2 – Zoom on the zone of interest highlighting the lack of pixels in one direction.