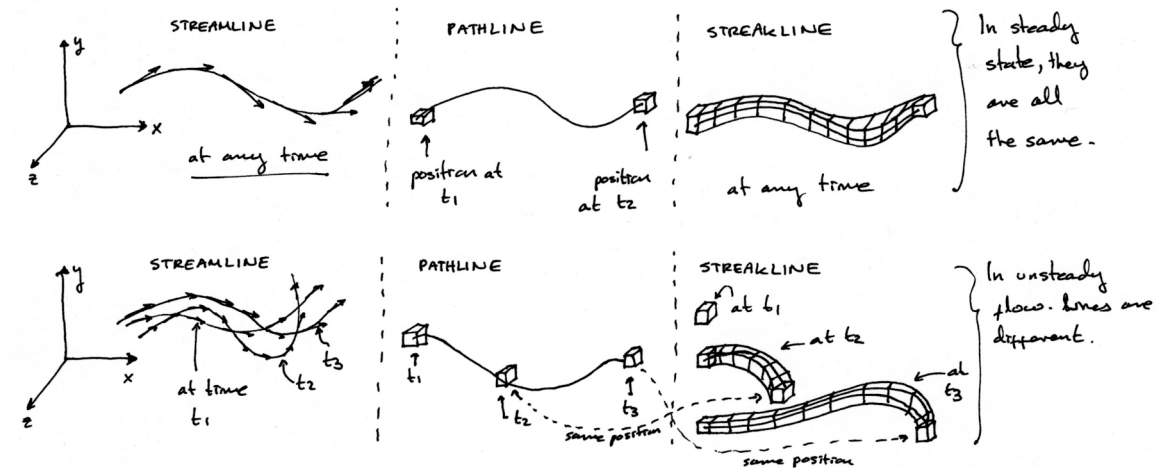


Muddy Points:

Do streaklines have to be continuous?

- Yes, they represent the instantaneous positions of adjacent fluid elements. Sometimes it is easy to get confused between pathlines and streaklines. A pathline represents the time-history of the location in time of a particular volume element, i.e., its trajectory going from one point to another. A streakline is constructed by the instantaneous positions of volume elements that went through a particular point in space.

The following might help you understand the difference between these lines:



Does Bernoulli's Eq. still hold for streamlines in 2D or 3D?

Yes it does, as long as the flow is steady, otherwise streamlines will change in time. The flow should also be inviscid. We will revisit the 3D derivation of Bernoulli's soon.