ESS 511A: Geophysical Continuum Mechanics

Highlight Report #2

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In last class, we begin with discussion of some of the syllabus problem, the form and timeline of final project presentation. Then we spend some time talking about two different methods describing the motion of fluid or continuums with deformation. The first is Lagrangian description using an initial or undeformed configuration, which we simply focus on a fixed physical particle in a continuum. The second is the Eulerian description using a deformed configuration, where we actually focus on a fixed spacial point. We illustrated the difference of these two viewpoints with a traffic flow on Interstate 5: observer on 45th street which has Eulerian description, and a driver inside the flow which has Lagrangian description, will have different measurement of the car density.