

# Summary

- Laws of physics work in any inertial frame
  - “Simultaneous” depends on frame
  - Considering those time intervals that are measured at one point in the rest frame,  
Time dilates relative to proper time  
or moving clocks run slow.
  - Length contracts relative to proper length  
or moving objects are shorter.
  - Energy/Momentum conserved
- Laws of physics for  $v \ll c$  reduce to Newton's Laws