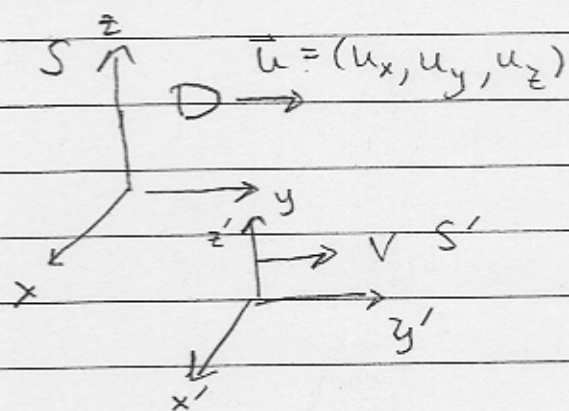


Last Time



- We have a bullet which moves \textcircled{u} velocity \vec{u} in frame S , an observer (S') (i.e. a guy in a spaceship) moving with speed v with respect to S measures a different velocity

Relativistic

$$u'_x = \frac{u_x - v}{1 - u_x v / c^2}$$

$$u'_y = \frac{u_y}{\gamma(1 - u_x v / c^2)}$$

$$u'_z = \frac{u_z}{\gamma(1 - u_x v / c^2)}$$

Classical

$$u'_x = u_x - v$$

$$u'_y = u_y$$

$$u'_z = u_z$$