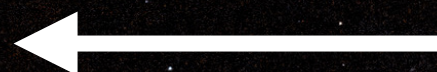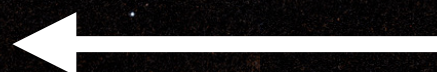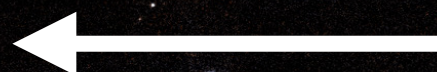downstream

upstream

$$u_2 = \frac{1}{4}u_1$$

$$u_1 = -V_s$$