
Review problem

A sprinkler receives $2.7 \text{ m}^3/\text{hr}$ of water ($\rho = 1000 \text{ kg/m}^3$) through its center and distributes it on the front lawn of Rose via three identical arms.

- (a) An Ultimate Frisbee player holds on to the center of the sprinkler at P and keeps it from turning. Find the required moment the Frisbee player must apply to P in order to keep the sprinkler stationary.
- (b) The Frisbee player releases her grip on the sprinkler and allows it to rotate freely. Find the steady rotational velocity ω if the sprinkler rotates without friction.

