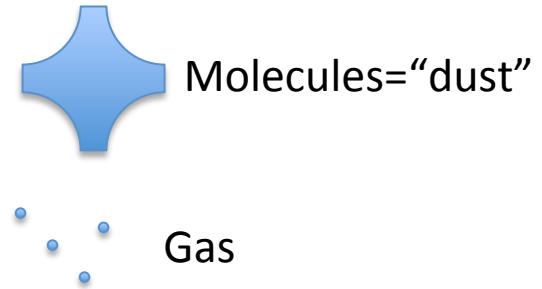
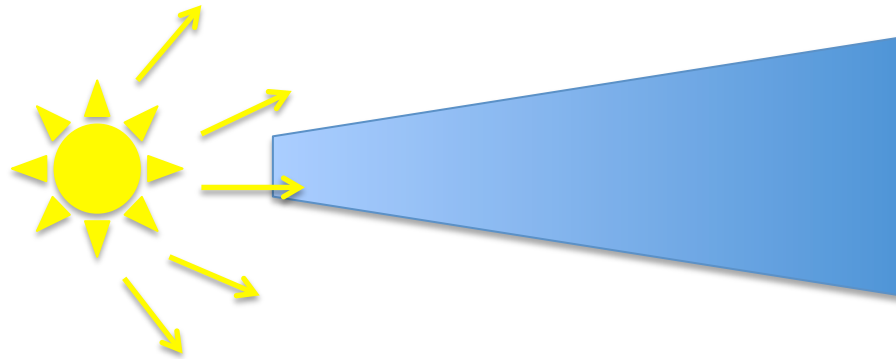


Momentum

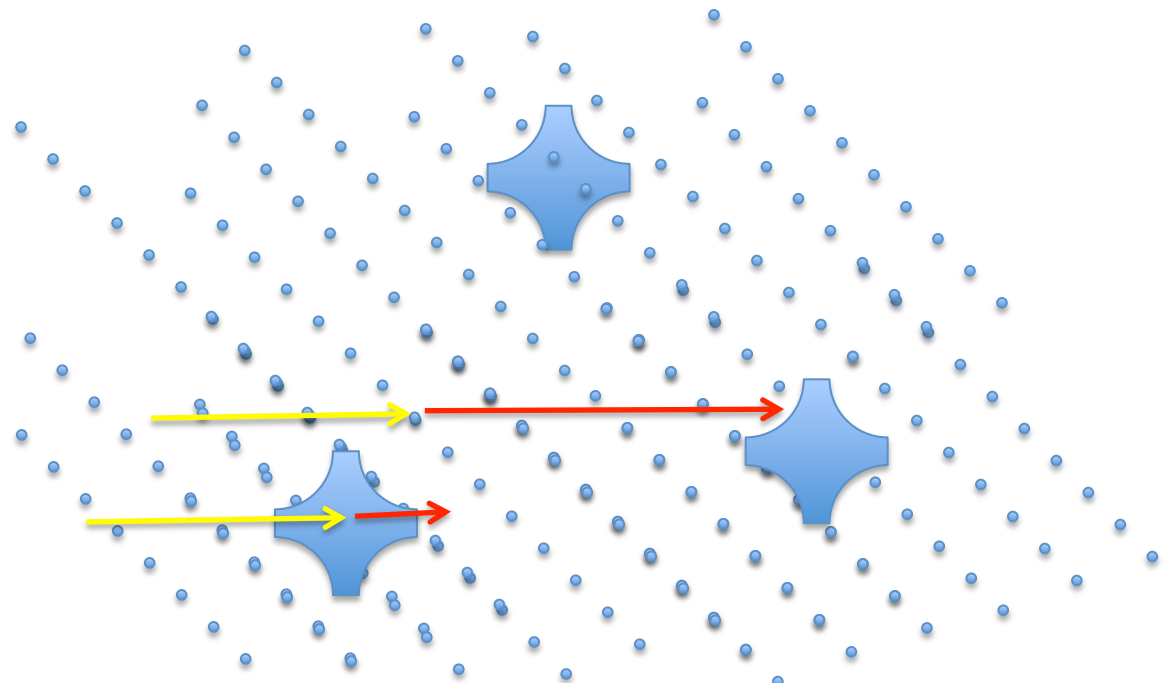
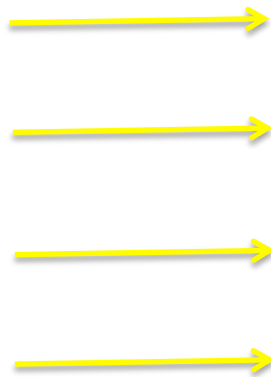
- (Massless) Photons carry momentum
 - $p=h/\lambda$
 - How does λ affect p ?
- Momentum of a massive particle
 - $p=mv$
 - How does m affect p ?

Once a star “turns on”

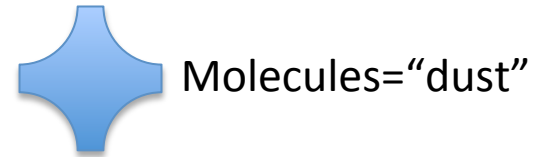
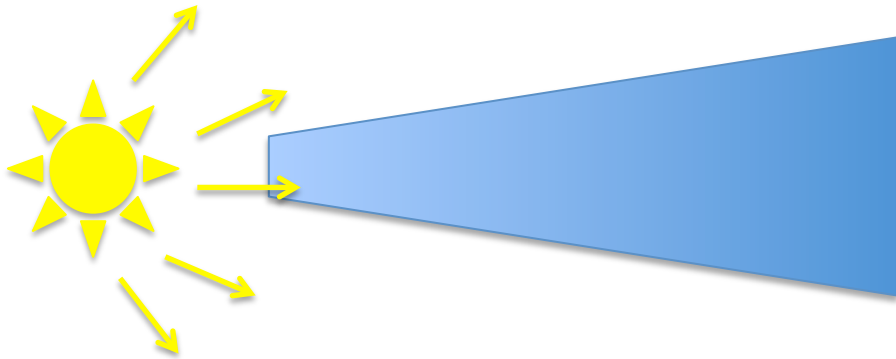
Originally 100:1 ratio of gas:dust, but.... How does motion of dust vs. gas differ when they interact with a photon? Justify your answer in terms of the equations describing momentum!



Stellar
wind

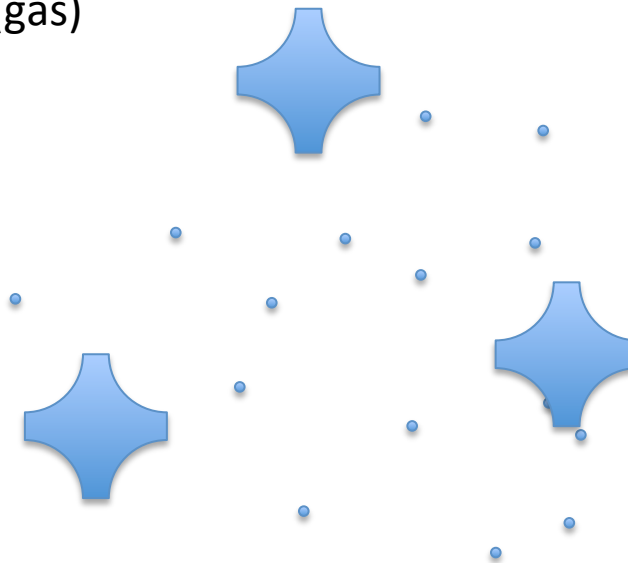
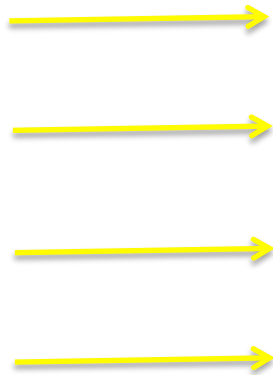


Once a star “turns on”



Originally 100:1 ratio of gas:dust, but....

Radiation pressure starts to blow material out of the disk, starting with the smallest pieces (gas)



So disks can't survive forever...