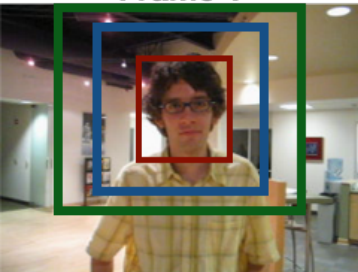


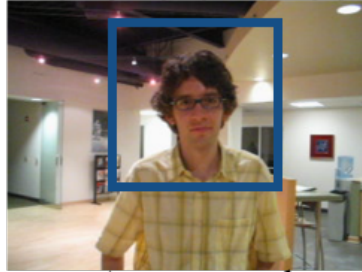
**Initialization  
Frame 1**



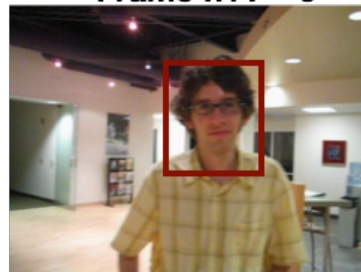
**Translation Estimation  
Frame 2 and Frame 3**



**Translation Estimation  
Frame 4 and Frame 5**



**Scale Estimation  
Frame  $n+1 = 6$**



**Translation Estimation  
Frame  $n+2 = 7$**



...

Particle Filter  
Initialization

Particle Filter  
Prior Update

Particle Filter  
Posterior  
Update

Particle Filter  
Prior Update

Particle Filter  
Posterior  
Update

Particle Filter  
Prior Update

Particle Filter  
Posterior  
Update

Particle Filter  
Prior Update

Particle Filter  
Posterior  
Update