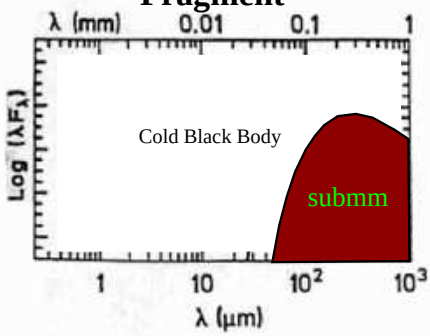
Pre-Stellar Phase

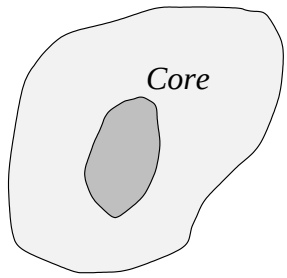
Protostellar Phase

Pre-Main Sequence Phase

Fragment



Parent Cloud



Pre-Stellar Dense Core

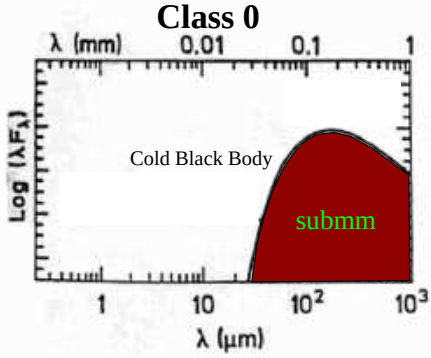
T_{bol} ~ 10-20 K, $M_* = 0$

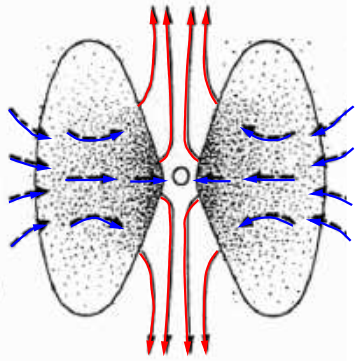
- 1 000 000 yr

Formation of the central protostellar object

t ~ 0 yr

Class 0



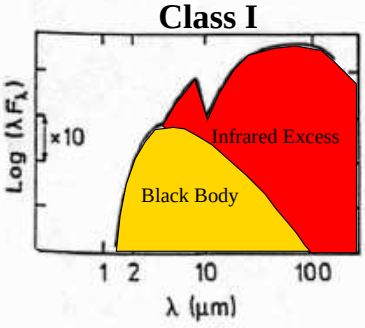


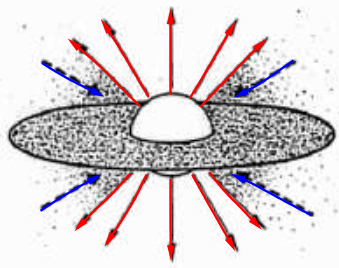
Young Accreting Protostar

T_{bol} < 70 K, $M_* << M_{env}$

< 30 000 yr

Class I





Evolved Accreting Protostar

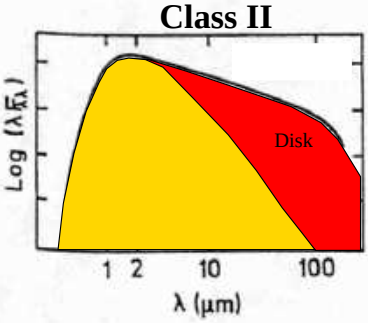
T_{bol} ~ 70-650 K, $M_* > M_{env}$

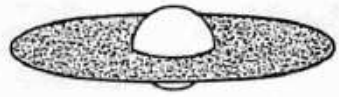
~ 200 000 yr

Birthline for

Pre-main sequence stars

Class II





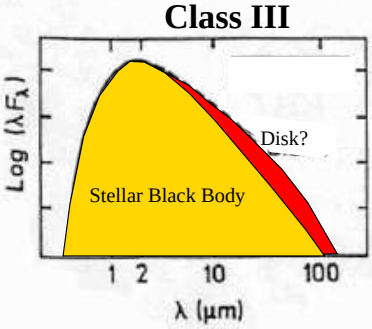
Protoplanetary Disk ?

Classical T Tauri Star

T_{bol} ~ 650-2880 K, M_{Disk} ~ 0.01 $M_\odot$

~ 1 000 000 yr

Class III



Debris + Planets ?

Weak T Tauri Star

T_{bol} > 2880 K, $M_{Disk} < M_{Jupiter}$

~ 10 000 000 yr

Time