

# Aglomerados Estelares

Omega Centauri



Omega Cen logo acima do horizonte



## Aglomerados abertos:

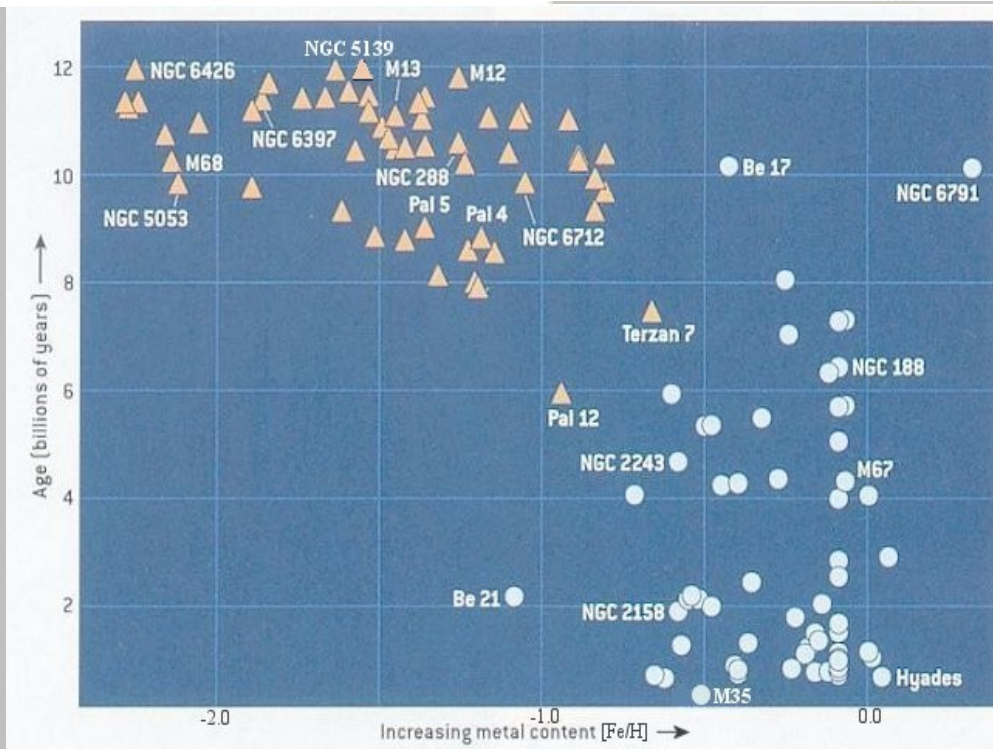
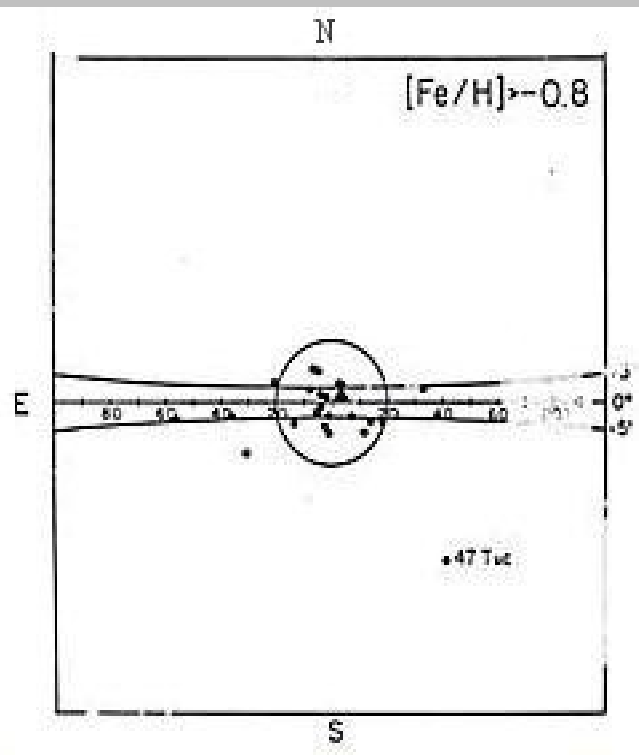
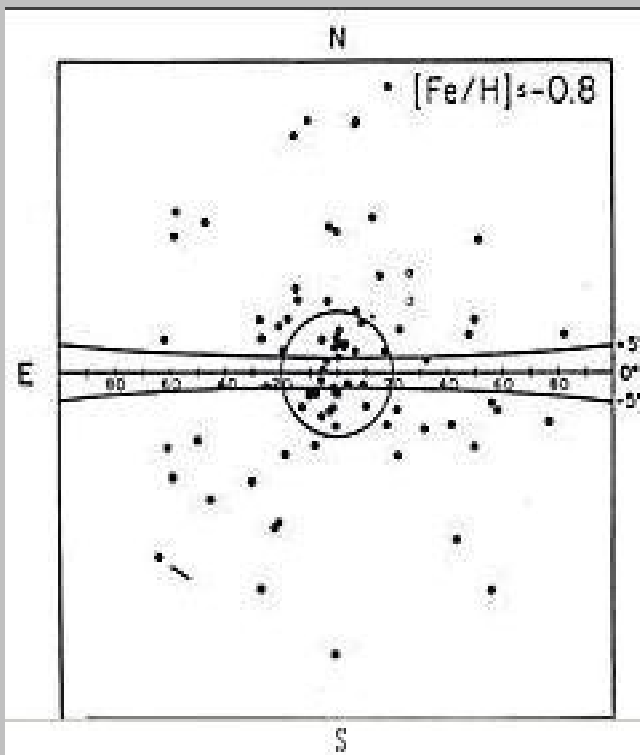
- Dezenas a poucos milhares de estrelas.
- Idades: muito jovens (1 milhão de anos) até relativamente velhos (alguns bilhões de anos).
- Encontram-se em torno do disco da Galáxia.
- Exemplos: Pleiades e Hyades.

## Aglomerados Globulares:

- Dezenas de milhares a 1 milhão de estrelas.
- Idades: alguns bilhões a mais de 10 bilhões de anos.
- Exemplos: Omega Centauri e 47 Tucanae

## Distribuição de aglomerados na Via láctea





# Pleiades



# Jewel Box



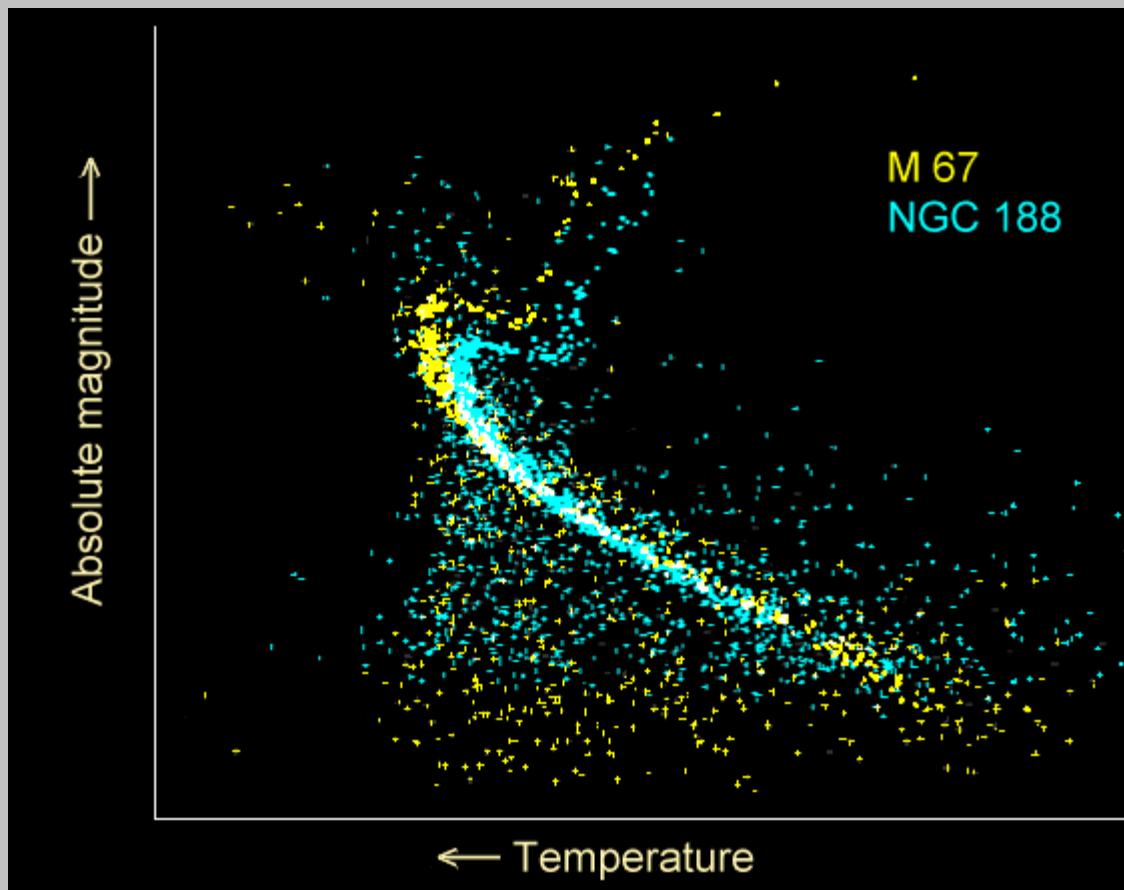
## Open Clusters

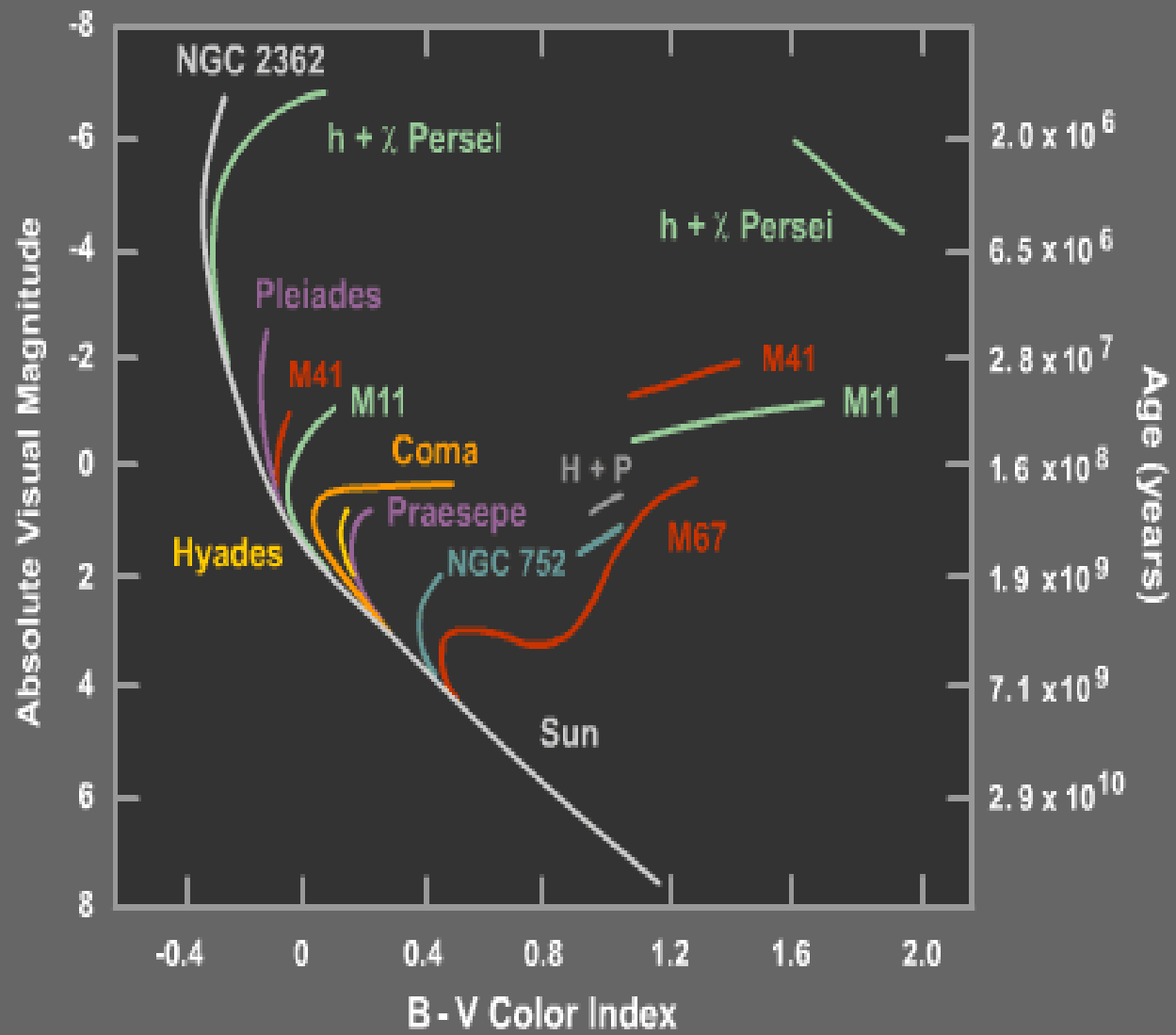


h + z Persei  
(young double cluster)



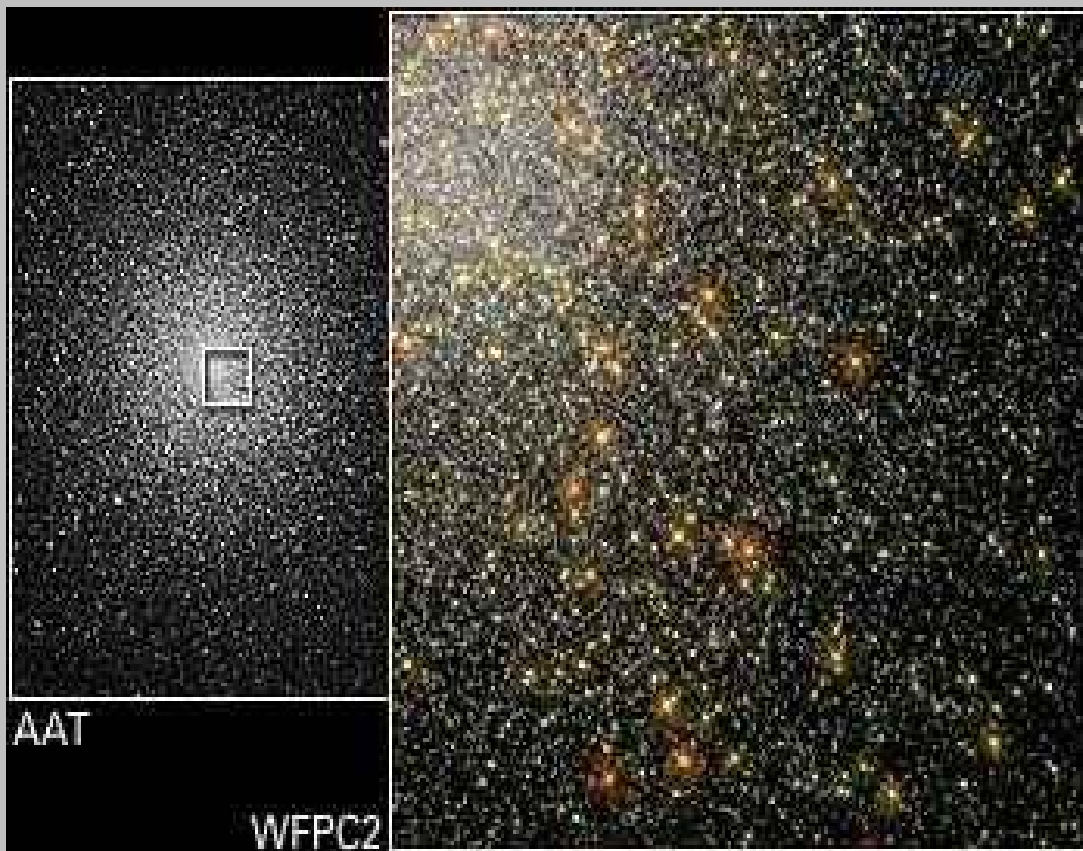
M67  
(4 billion year old cluster)



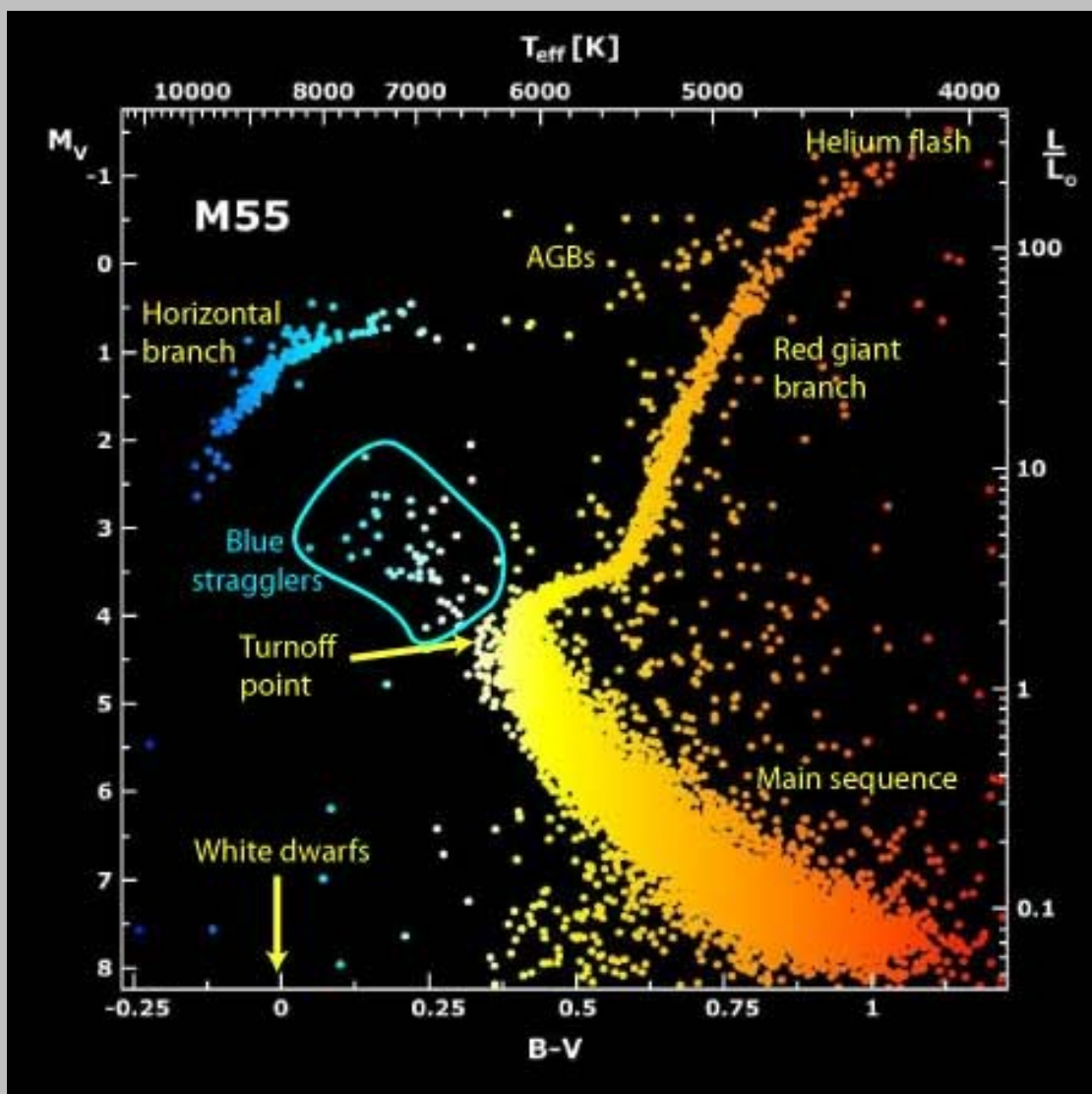


HR Diagrams for Various Open Clusters

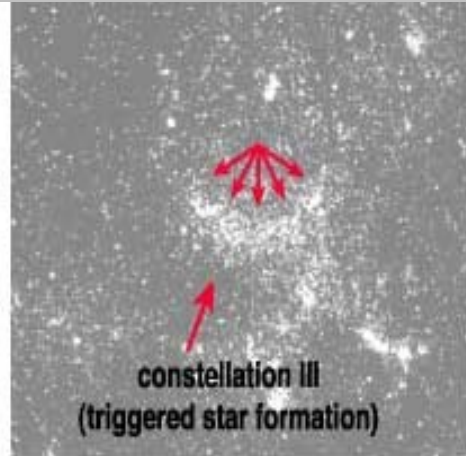
## 47Tucanae (HST) – região central



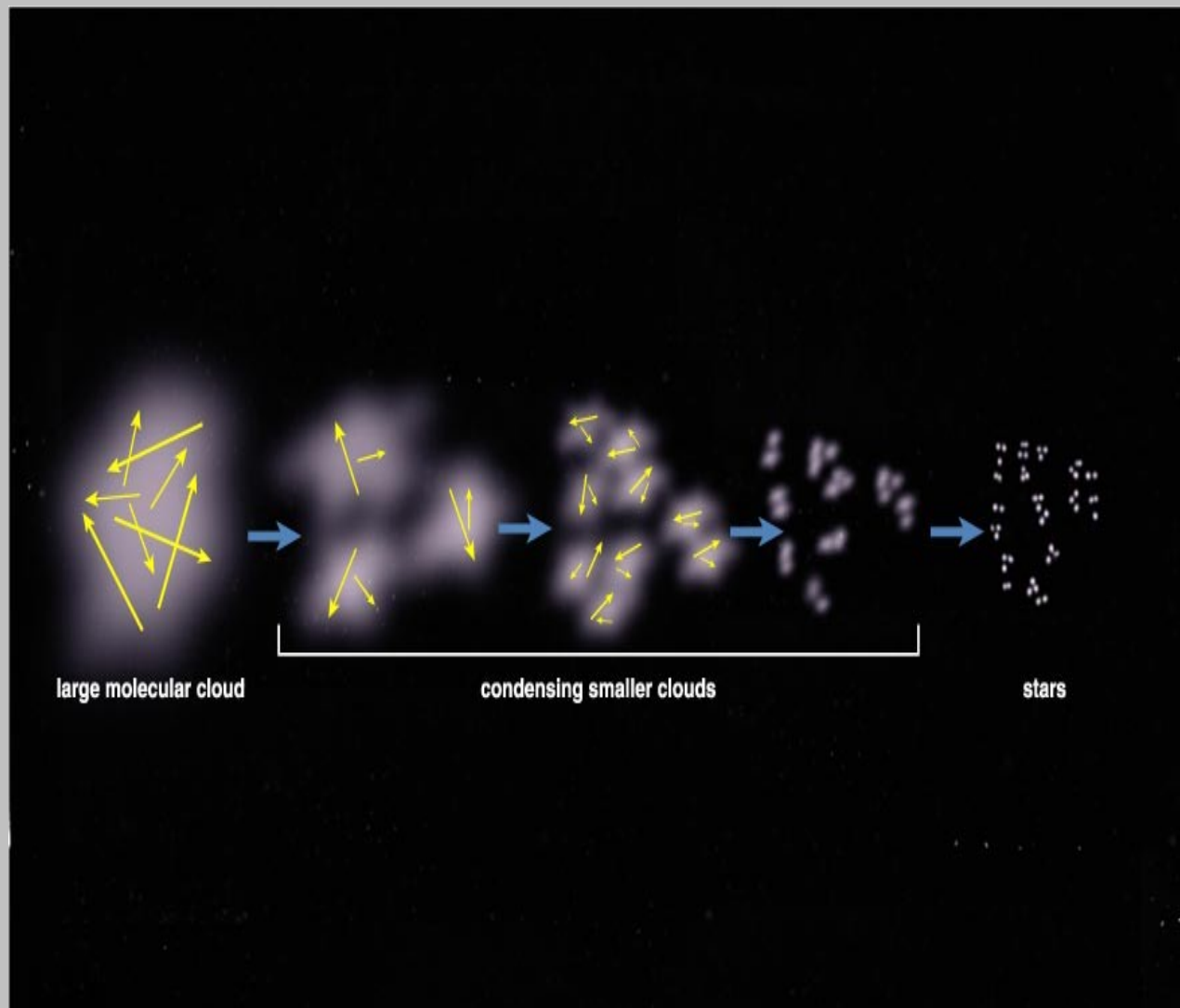
# Diagrama HR do aglomerado globular M55



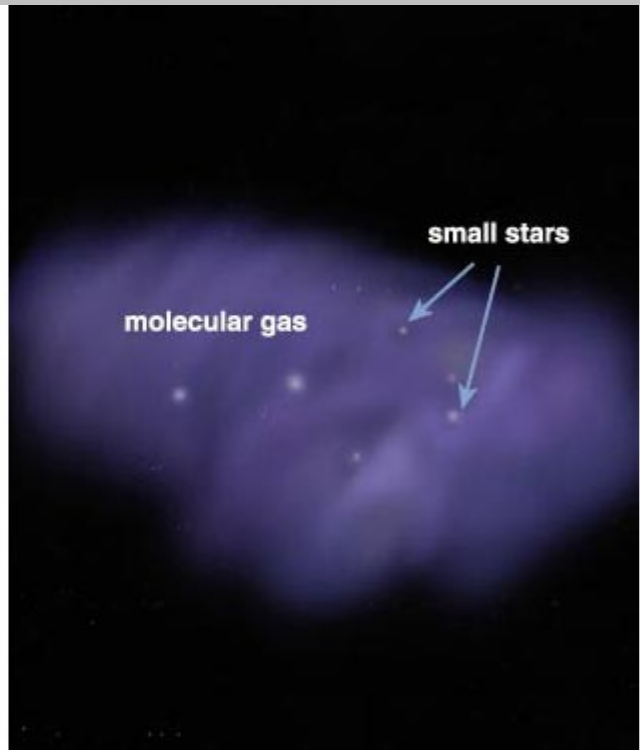
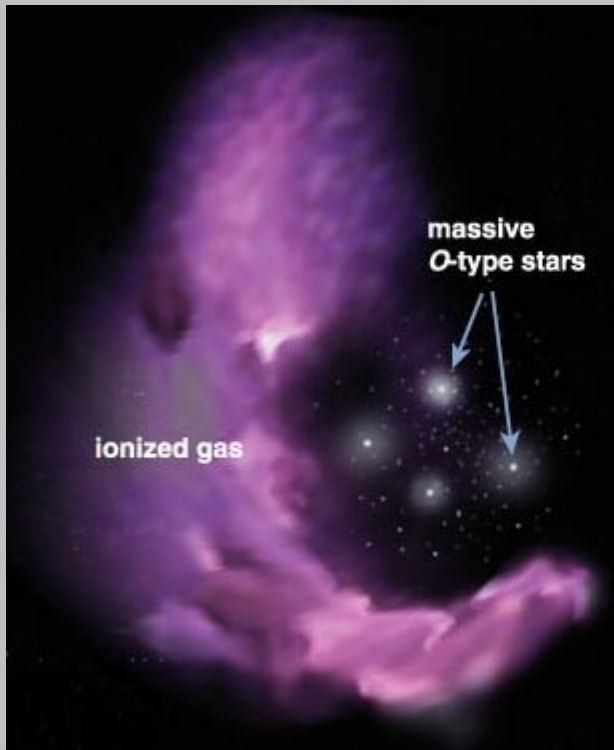
# Formação de aglomerados por contração gravitacional de nuvens moleculares.



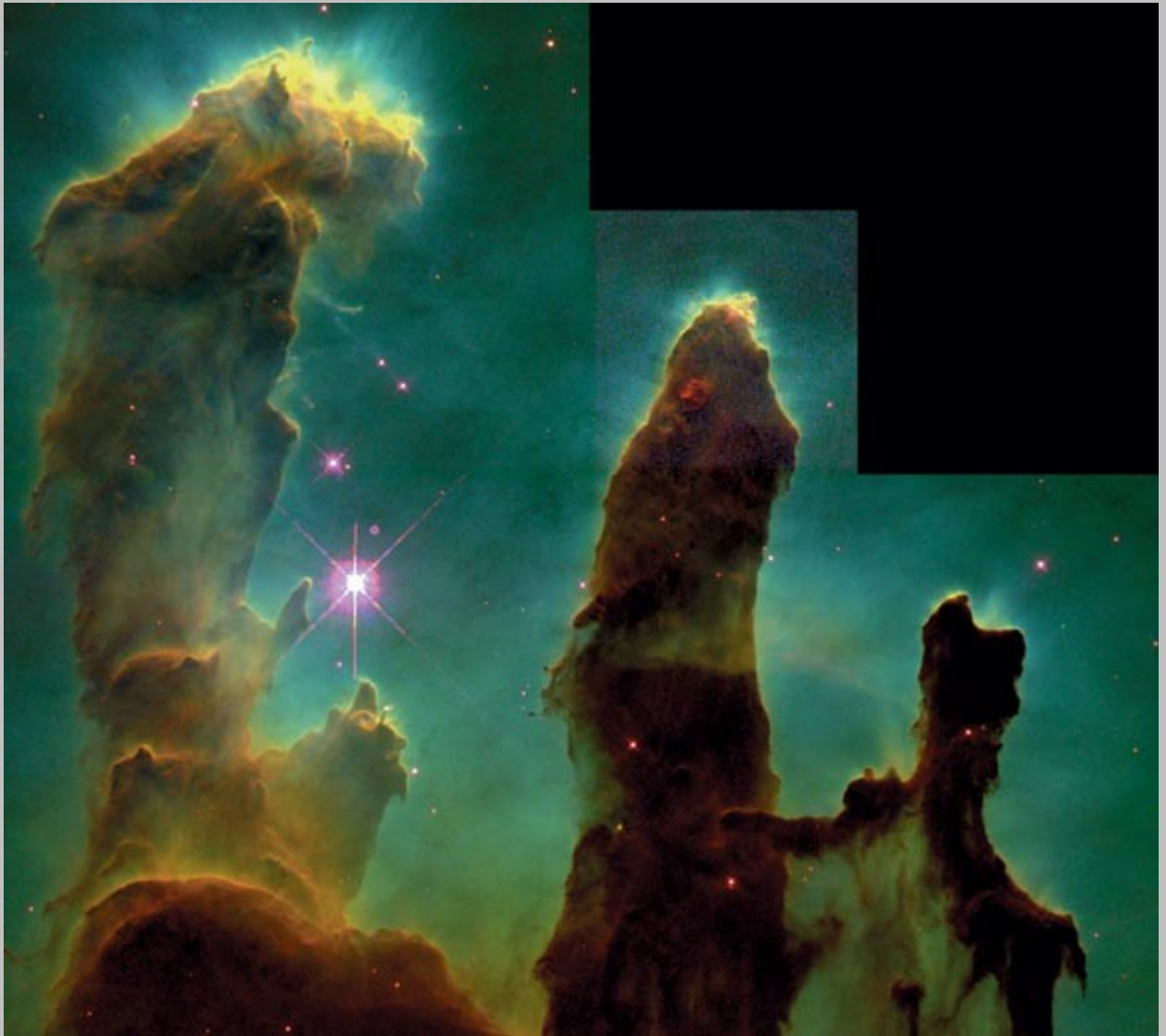
# Cenário de formação estelar por contração gravitacional



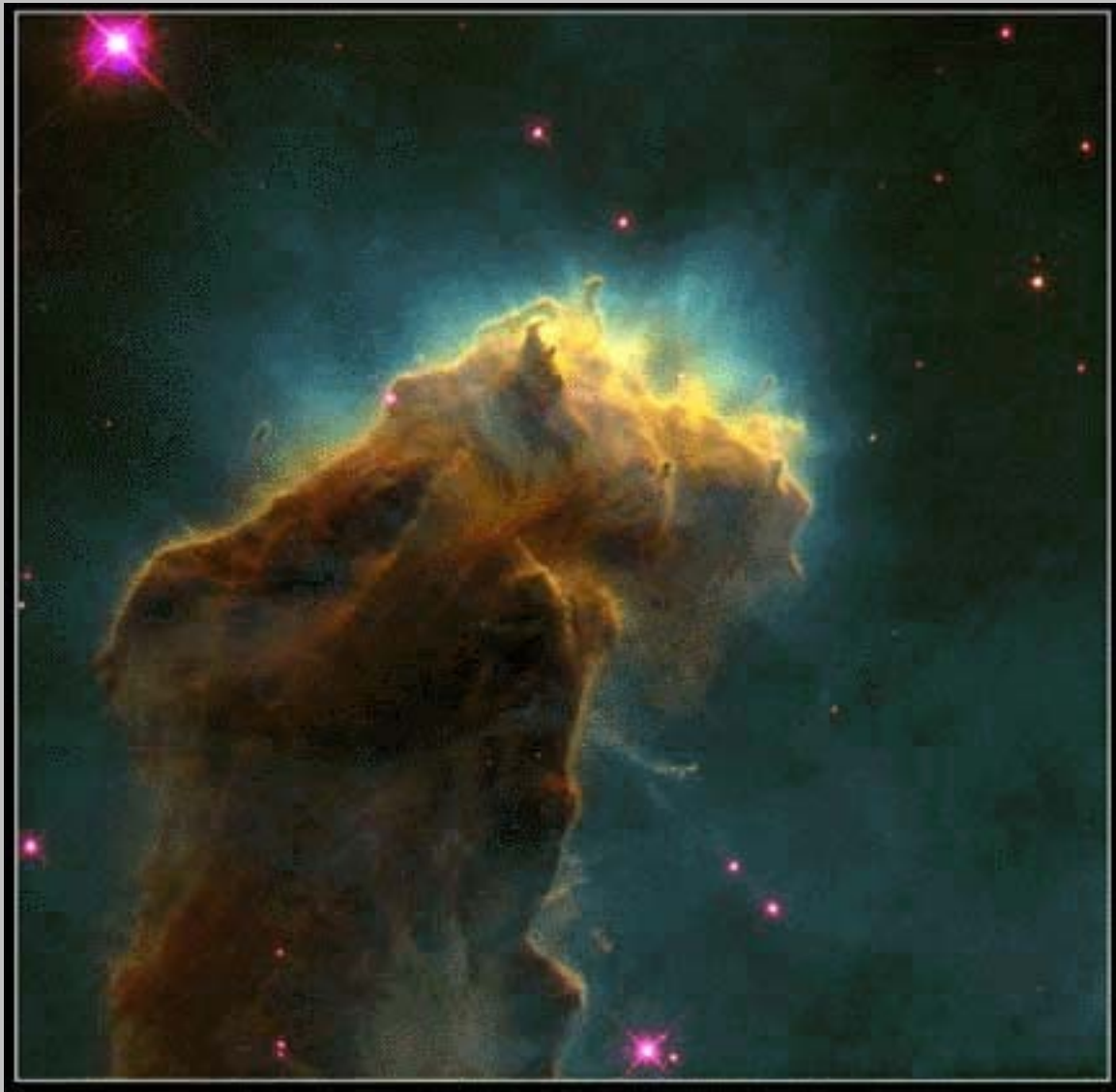
# Estágios avançados da contração gravitacional



## Estágios finais (I)



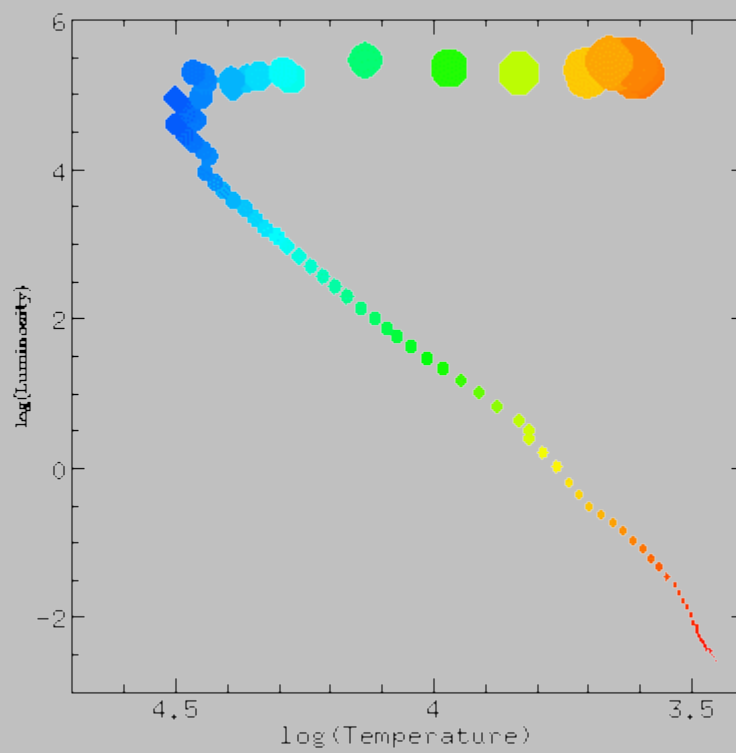
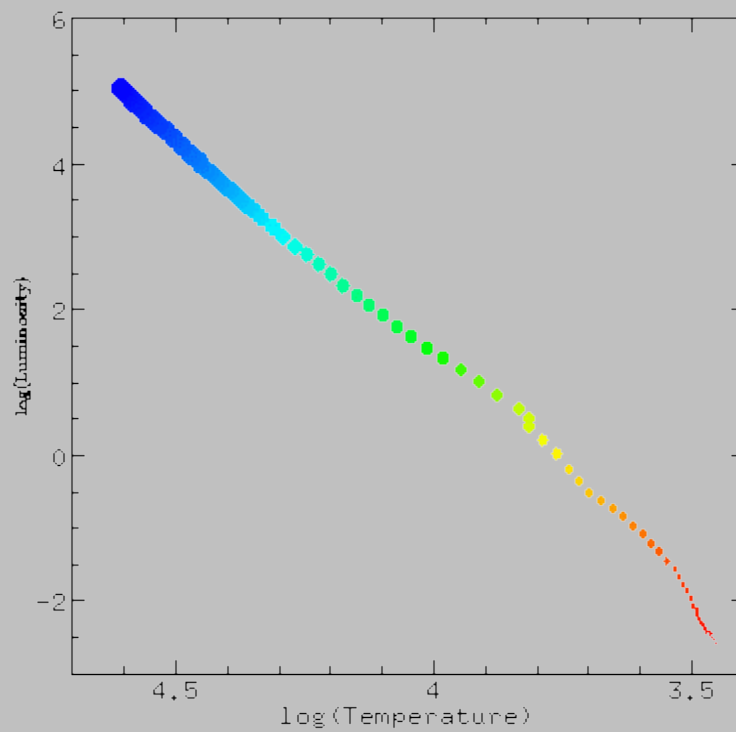
## Estágios finais da formação estelar (II)



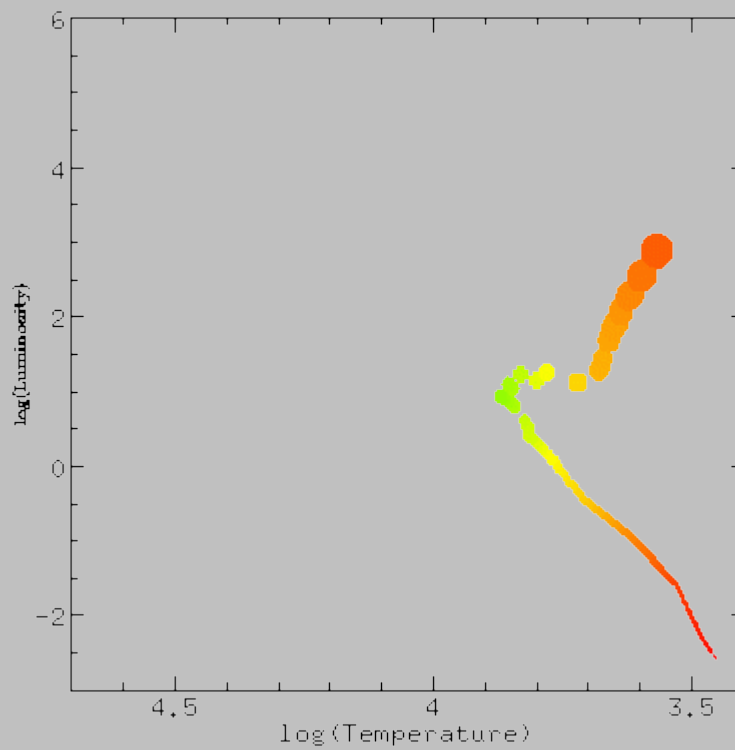
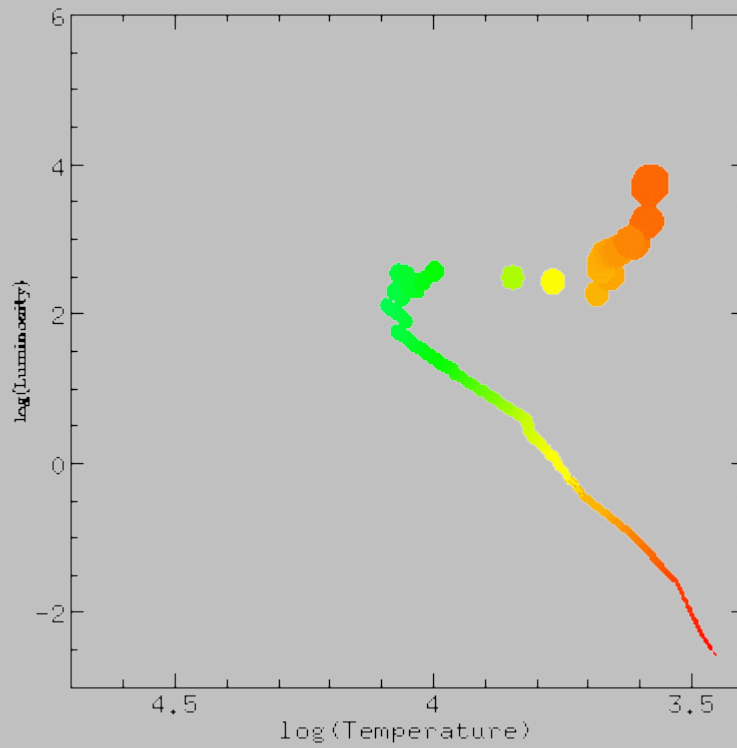
Região de formação de estrelas NGC3603 +  
aglomerado estelar jovem e massivo



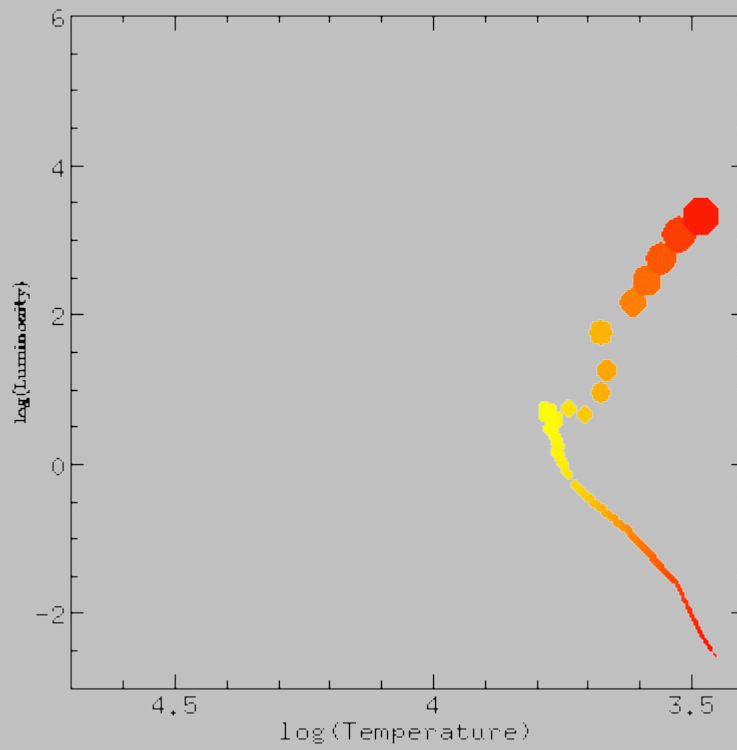
# Idade: 0 e 8 milhões de anos



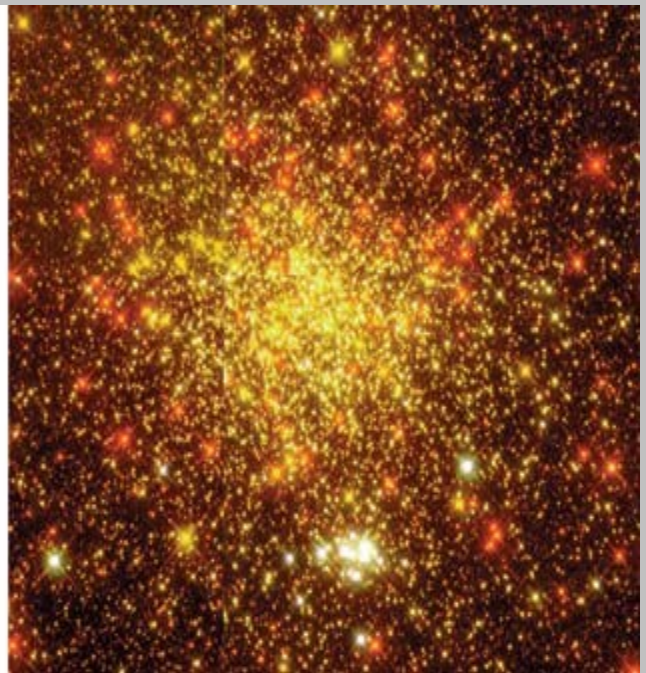
Idade: 256 milhões e 3 bilhões de anos



Idade: 8 bilhões de anos



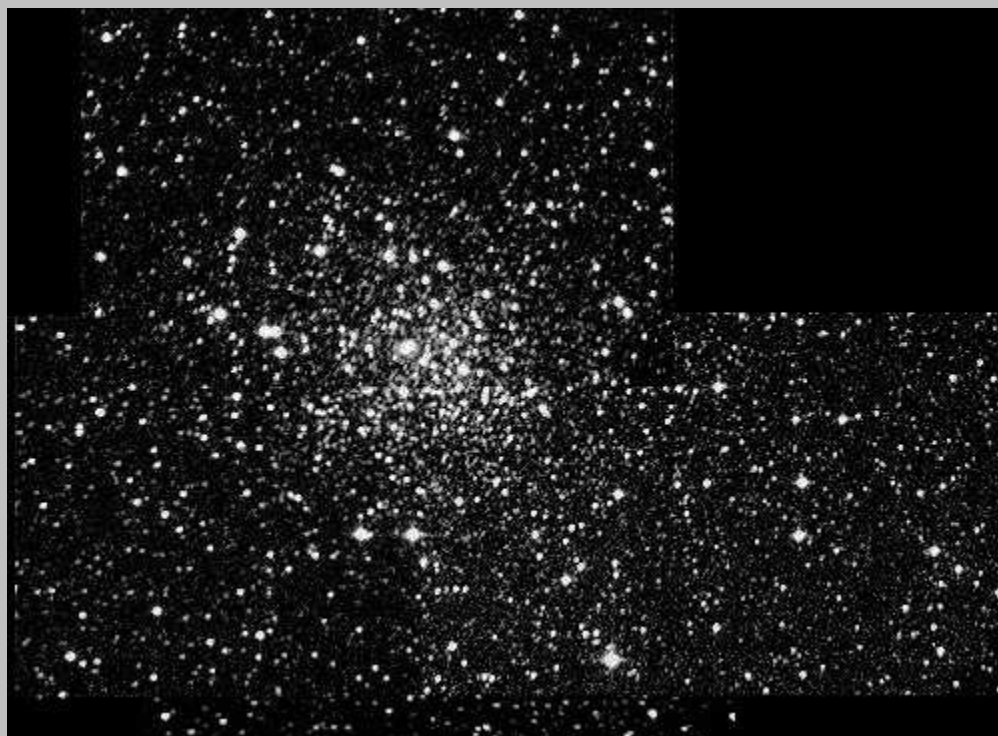
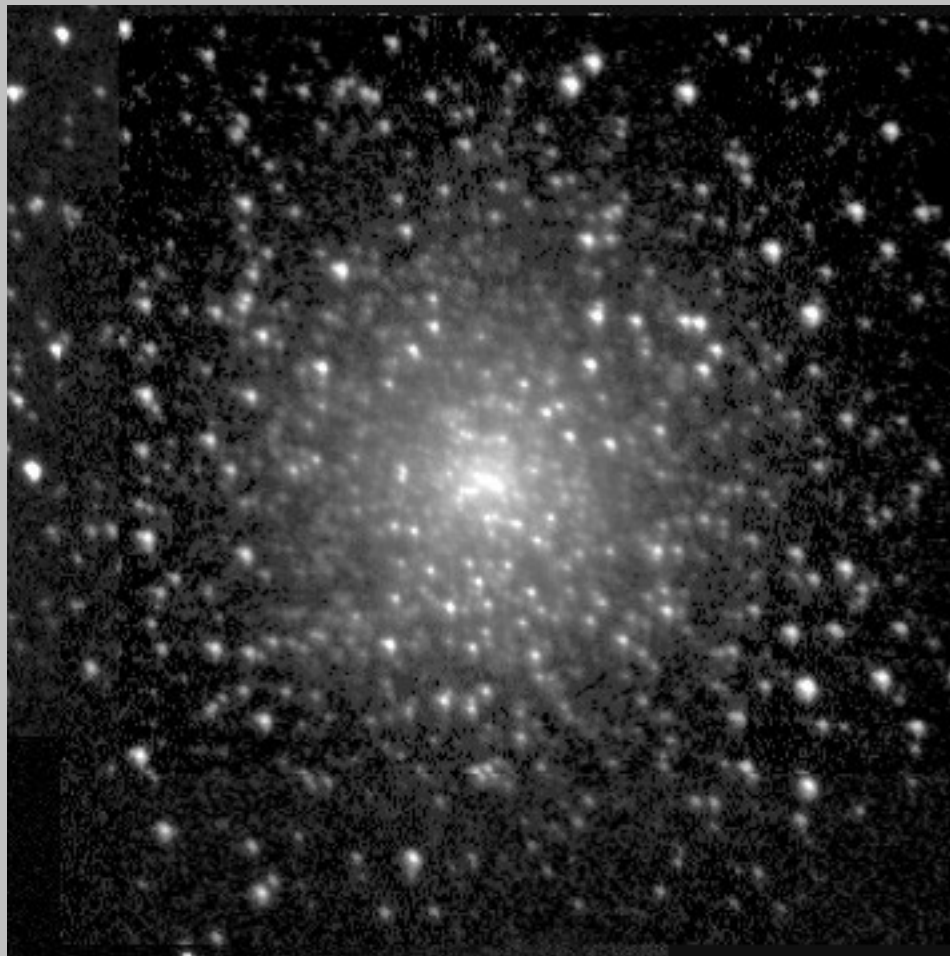
## População velha em aglomerados globulares



M13 e M14



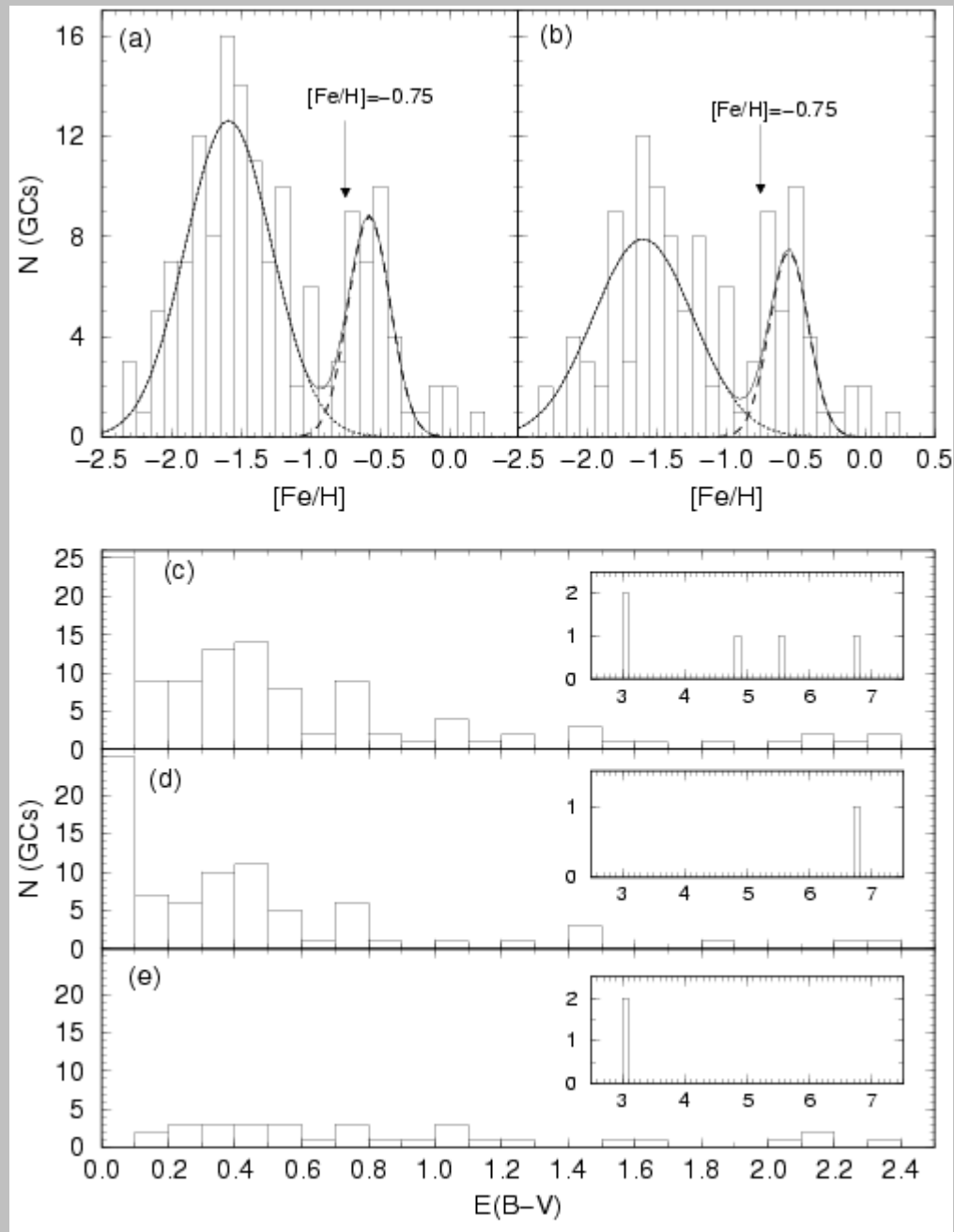
M15 e M71

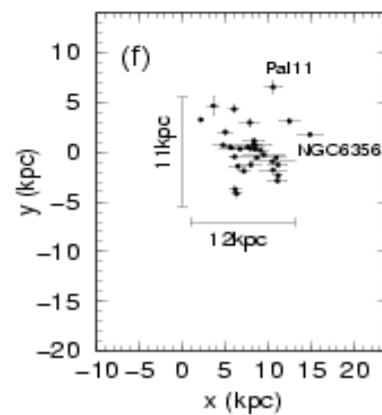
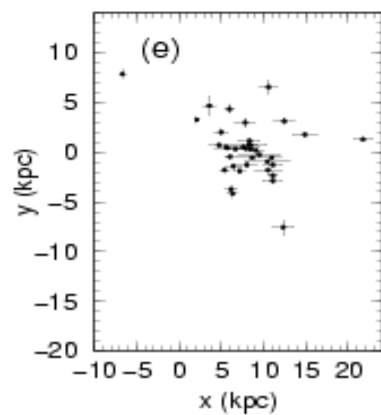
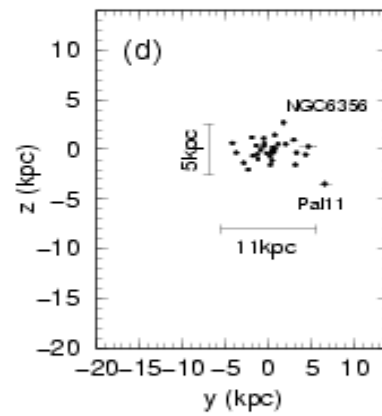
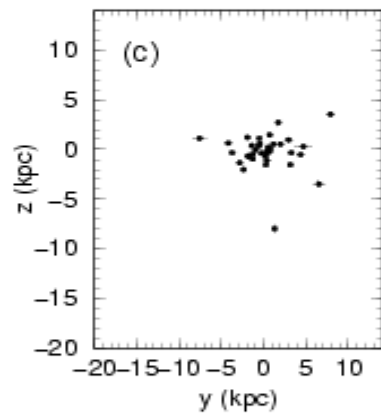
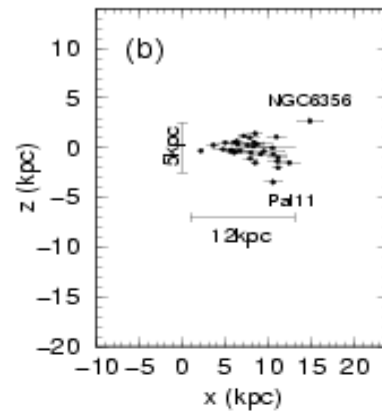
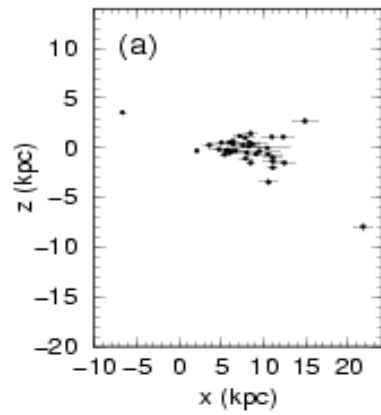


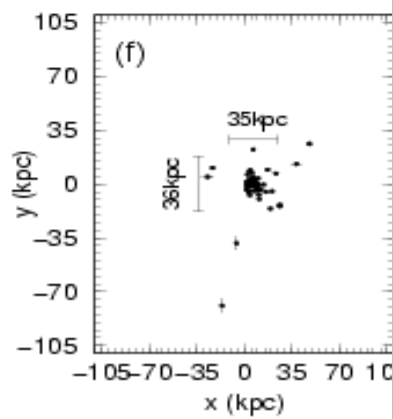
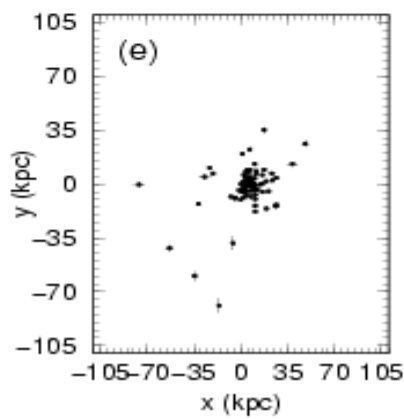
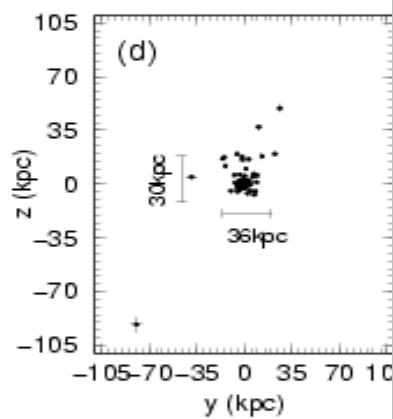
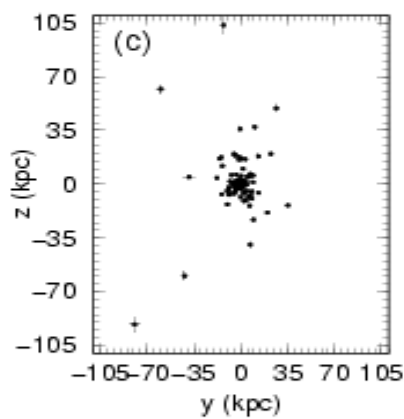
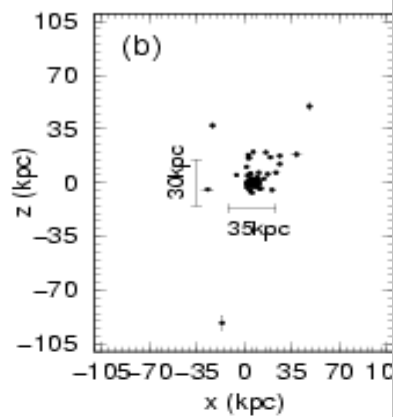
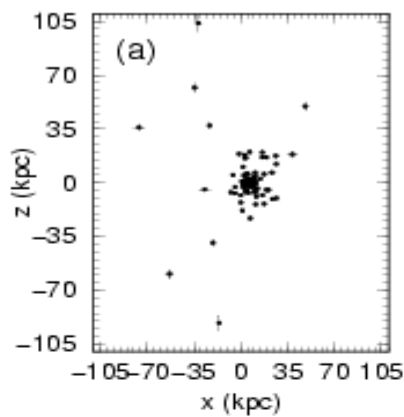
# Aglomerados globulares em outras galáxias



# Estatística dos aglomerados globulares da Galáxia







# Distribuição radial

