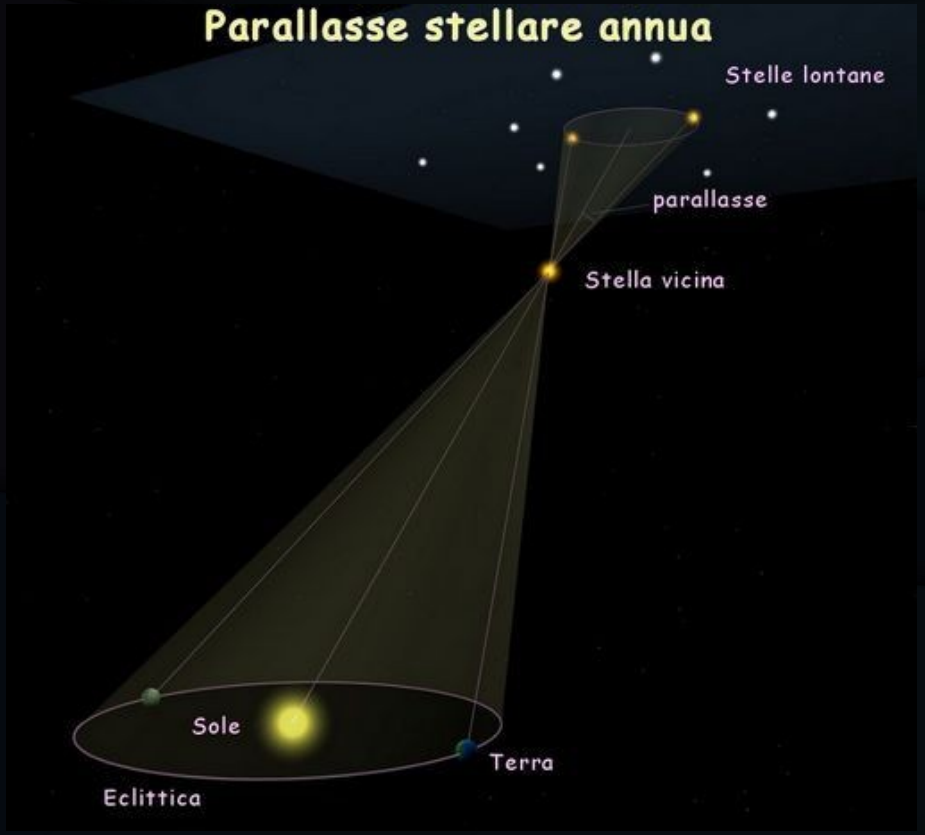
TEMPERATURA E RAGGIO DELLE STELLE

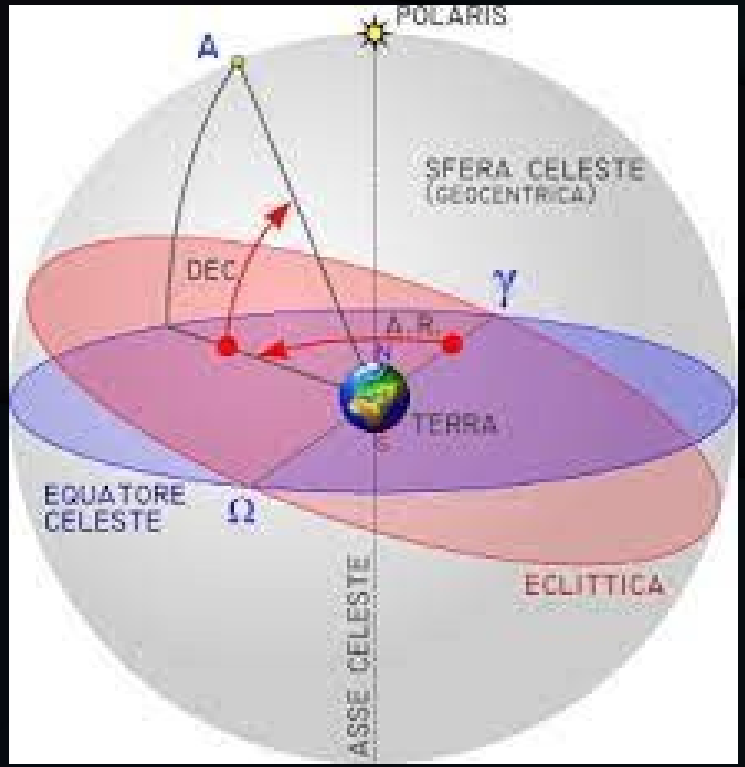
LA PARALLASSE



La parallasse trigonometrica, in campo astronomico, consiste nel cambiamento della posizione apparente di una stella sulla volta celeste a seconda del periodo dell'anno.

Le prime misure di parallasse per corpi al di fuori del sistema solare risalgono al XIX secolo, quando per la prima volta si riuscì a misurare lo spostamento delle stelle più vicine come 51 Cyg e Vega.

ASCENSIONE RETTA E DECLINAZIONE

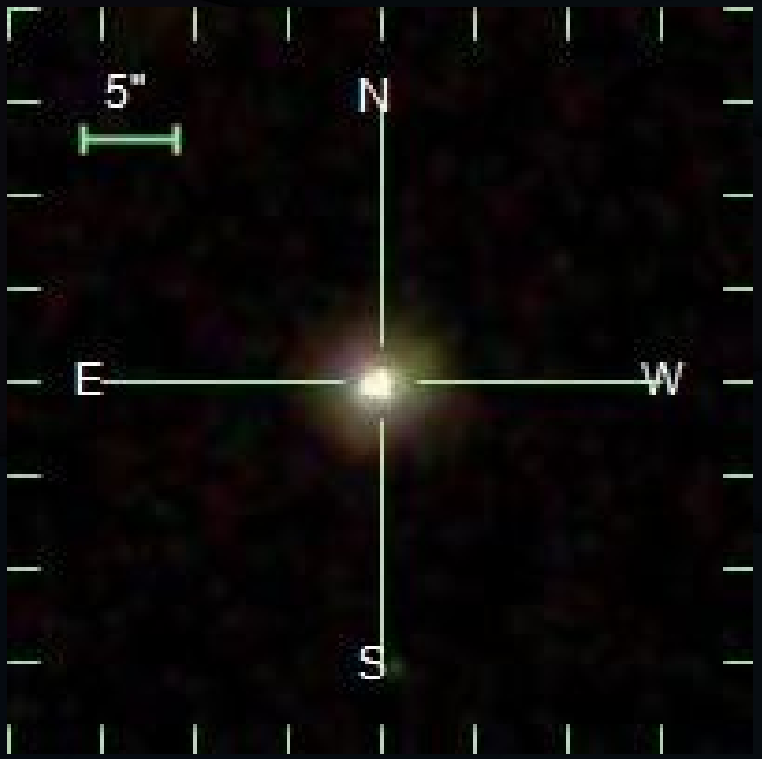


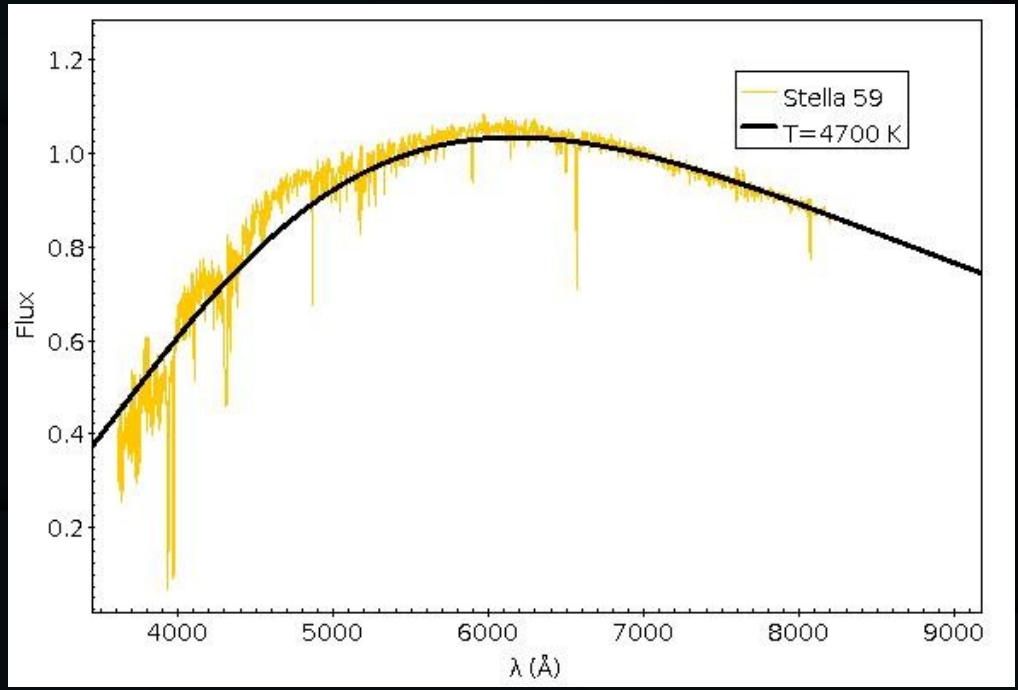
Le coordinate sono la **declinazione ( )** e l'**ascensione retta ( )**, misurate a partire, rispettivamente, dall'*equatore* verso il Polo celeste (P) e dal *punto* verso Sud. Questo sistema di coordinate si muove, nelle 24 ore, insieme ai corpi celesti ed è indipendente dalla latitudine del luogo.

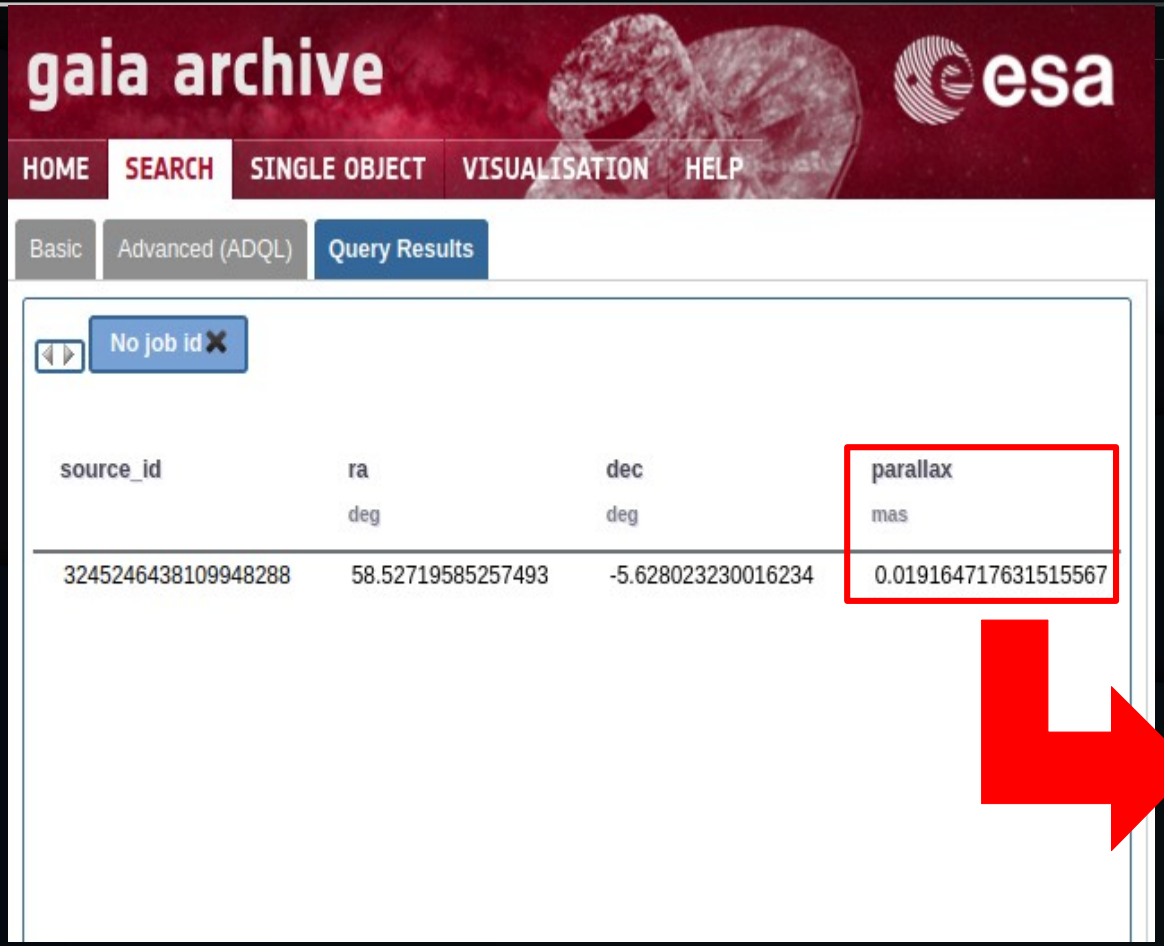
- si misura in *ore, minuti, secondi (di tempo), sono riconducibili ai meridiani terrestri*;
- si misura in *gradi, primi, secondi (d'arco), sono riconducibili ai paralleli terrestri.*

STELLA

59	39350	SDSS J035406.52-053740.9	58.52718	-5.62803





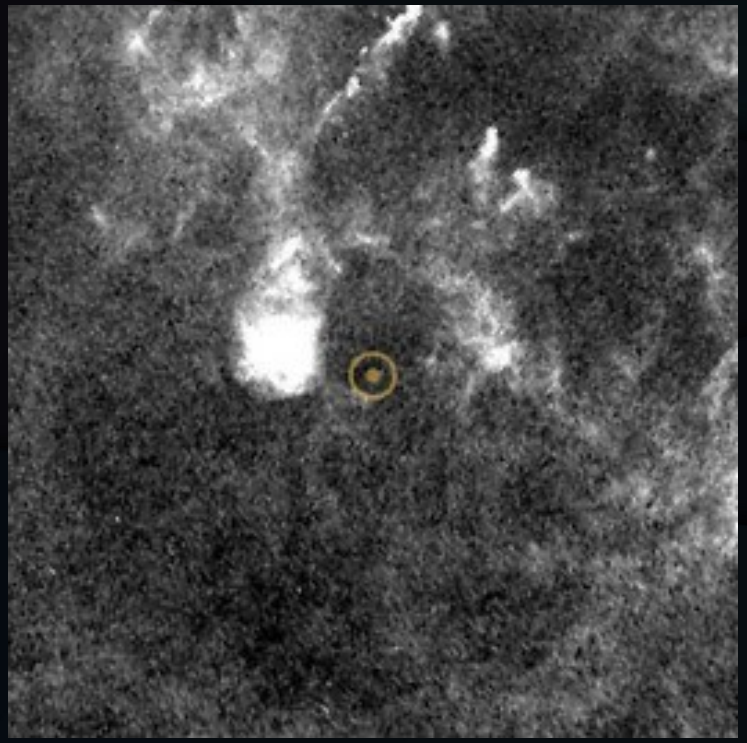


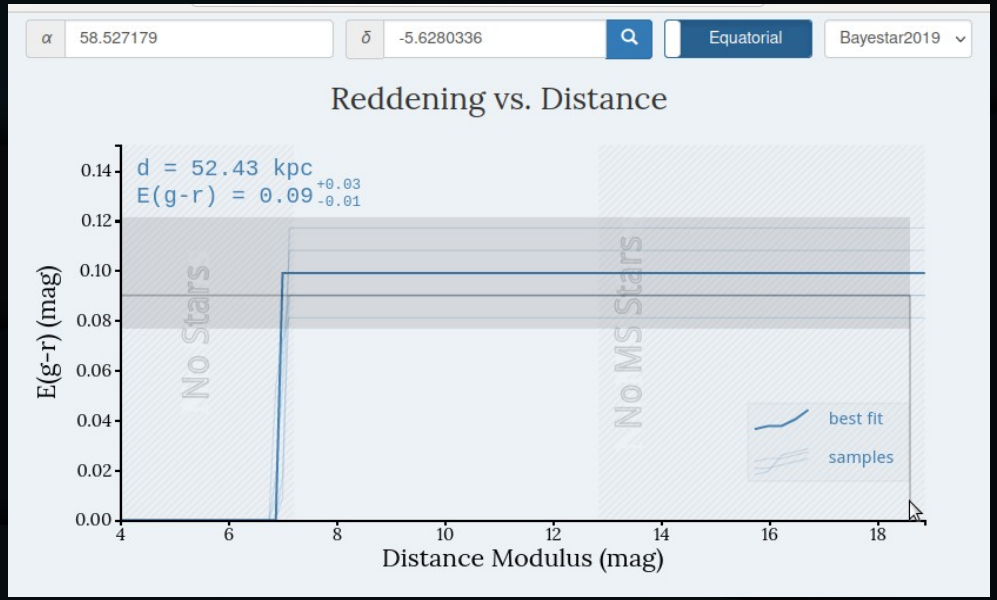
Utilizzando l'archivio Gaia e inserendo le coordinate equatoriali, il sistema ha fornito il valore della parallasse relativa alla stella.

Il reciproco della parallasse indicata permette di ottenere la distanza in kpc.

$$D = \frac{1}{\text{parallax}} \quad (\text{kpc})$$

DUST





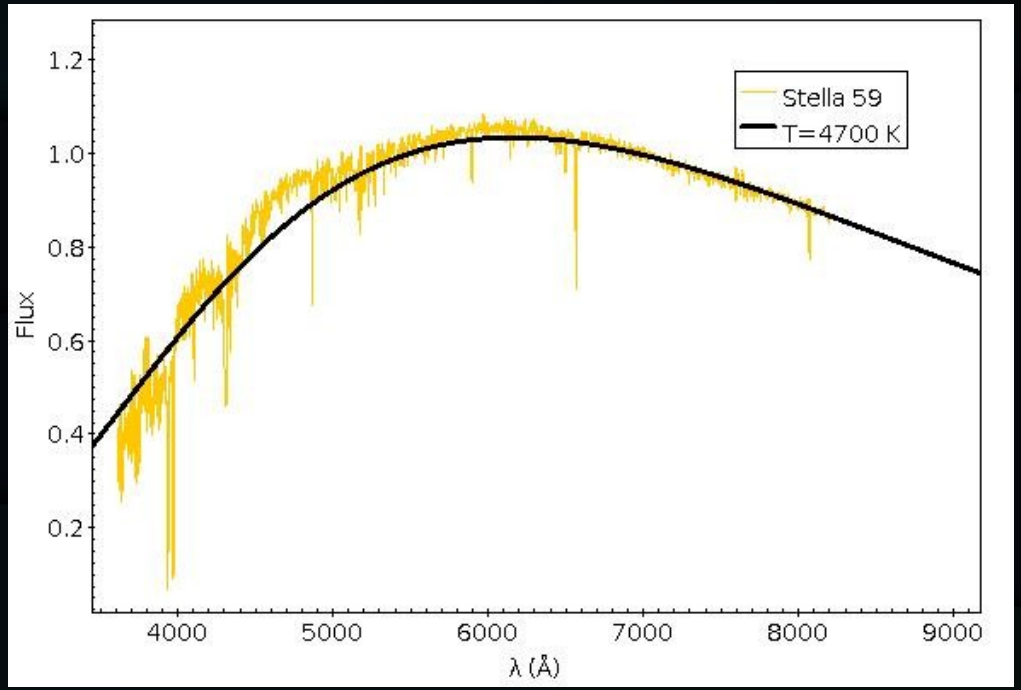
$$A_V \simeq 3.058 \times E(g-r)$$

https://player.vimeo.com/video/335071965?autoplay=1&loop=1&autopause=0&byline=0&title=0

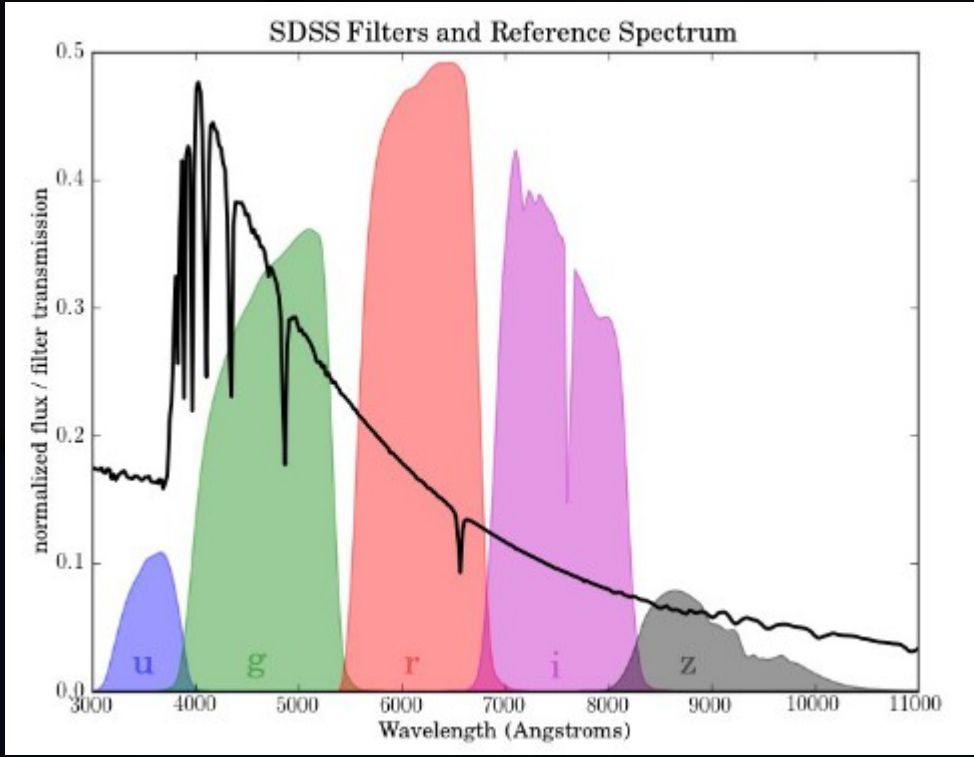
$$A_\lambda = A_V \times f_\lambda^{CCM}$$

$$I_{\lambda,0} = I_\lambda \times 10^{0.4 \times A_\lambda}$$

$$B_n(\lambda) = \frac{B(\lambda)}{B(\lambda_0)} = \left(\frac{\lambda_0}{\lambda}\right)^5 \frac{e^{\frac{1.439 \times 10^8}{\lambda_0 T}} - 1}{e^{\frac{1.439 \times 10^8}{\lambda T}} - 1}$$



RAGGIO

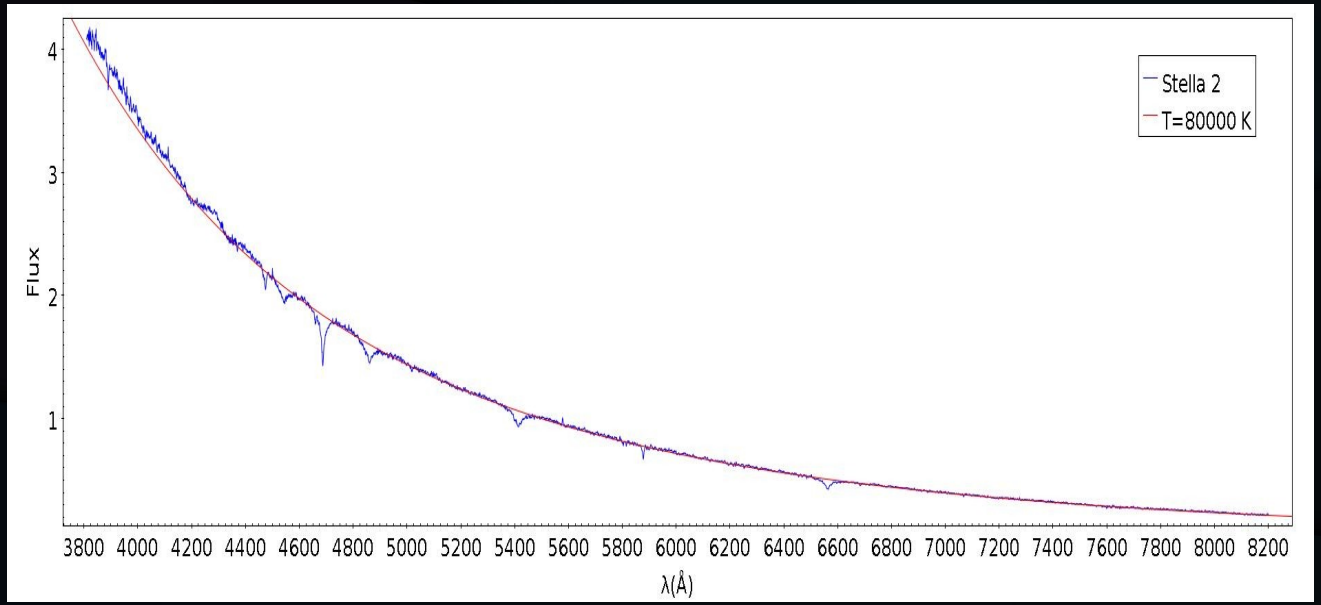


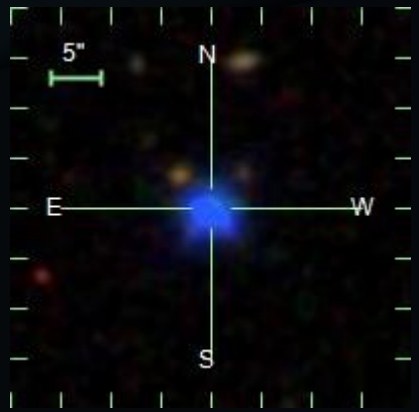
$$M_V = (V - A_V) + 5 - 5 \times \log_{10}(D)$$

$$\frac{L_{bol}}{L_{bol,\odot}} = 10^{-0.4 \times (M_{bol} - M_{bol,\odot})}$$

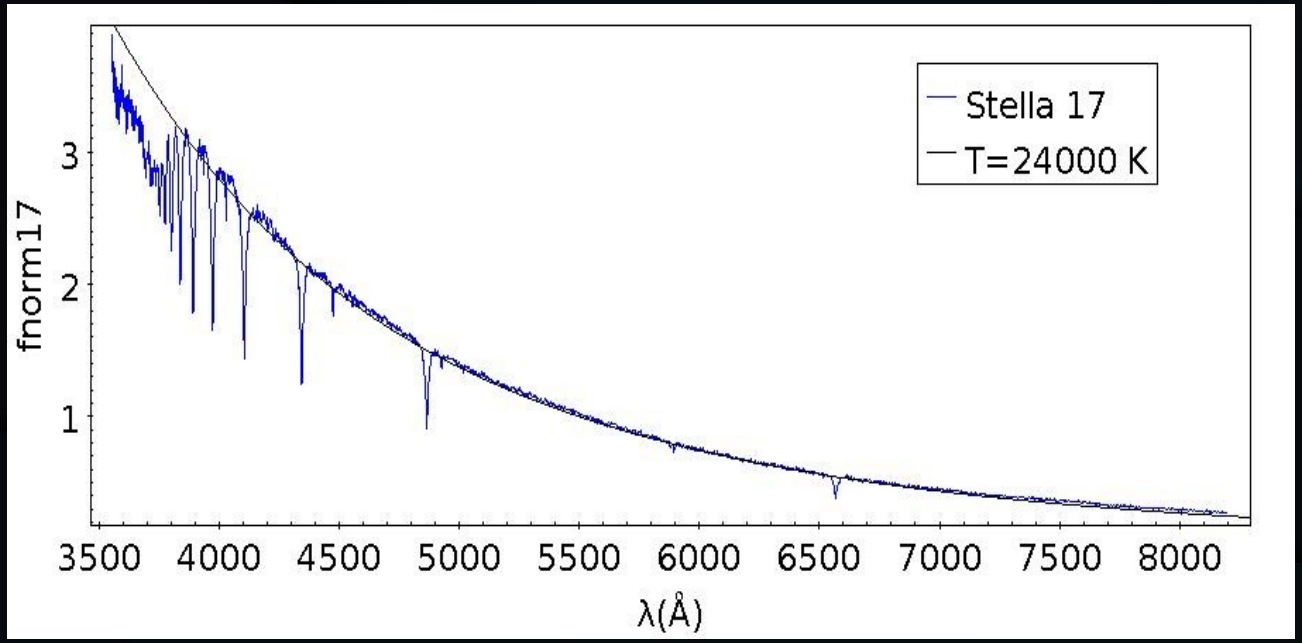
$$\frac{R}{R_\odot} = \sqrt{\frac{L_{bol}}{L_{bol,\odot}}} \times \left(\frac{T_\odot}{T}\right)^2$$

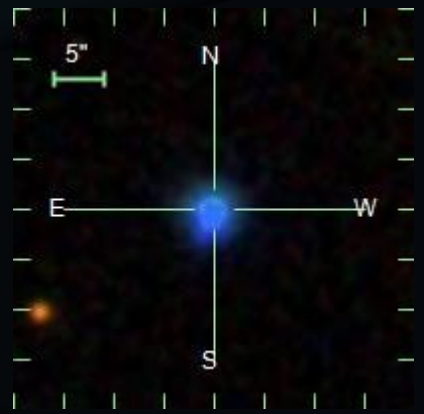
STELLA 2, CLASSE “O”



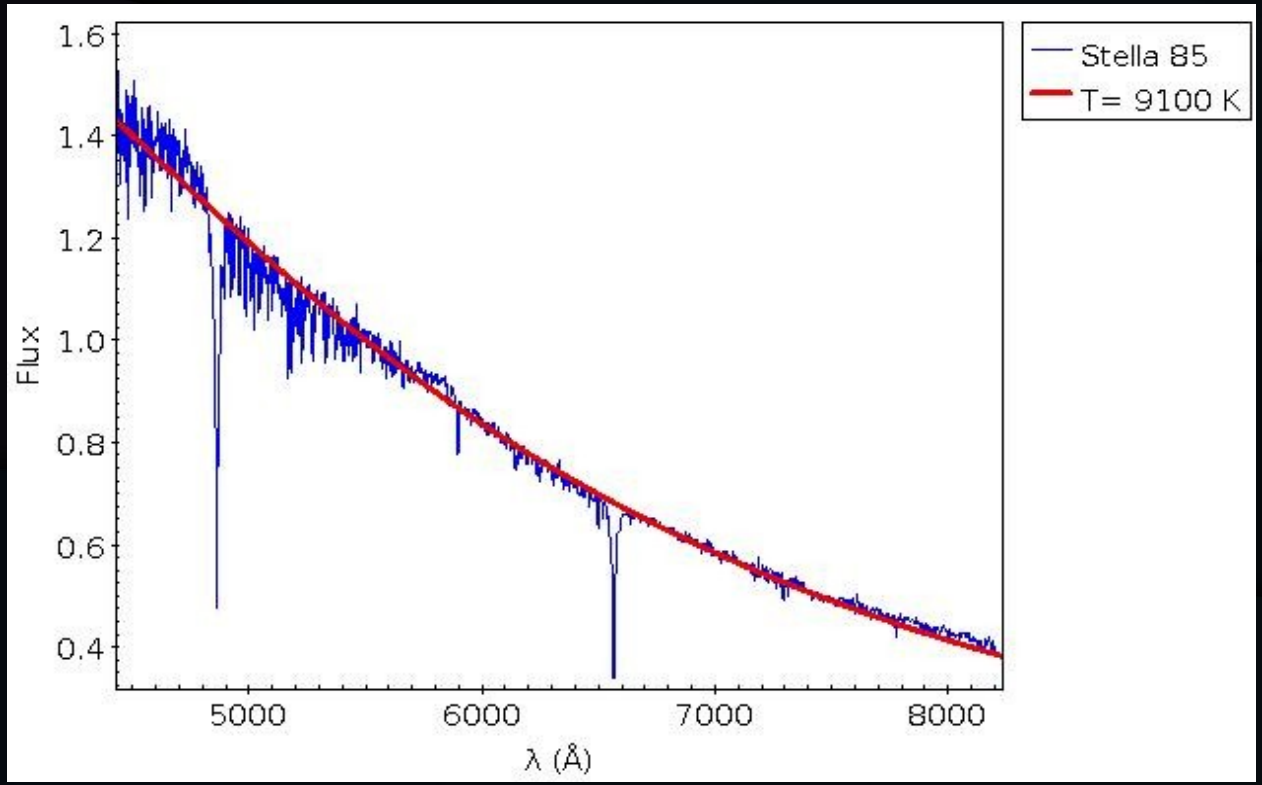


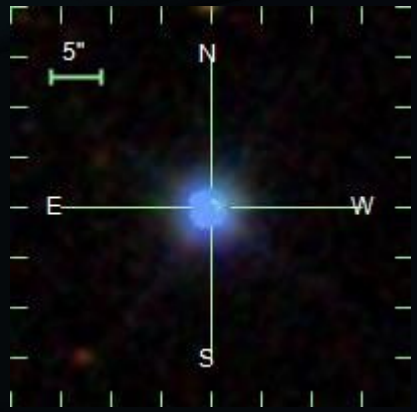
STELLA 17, CLASSE “B3” (V)



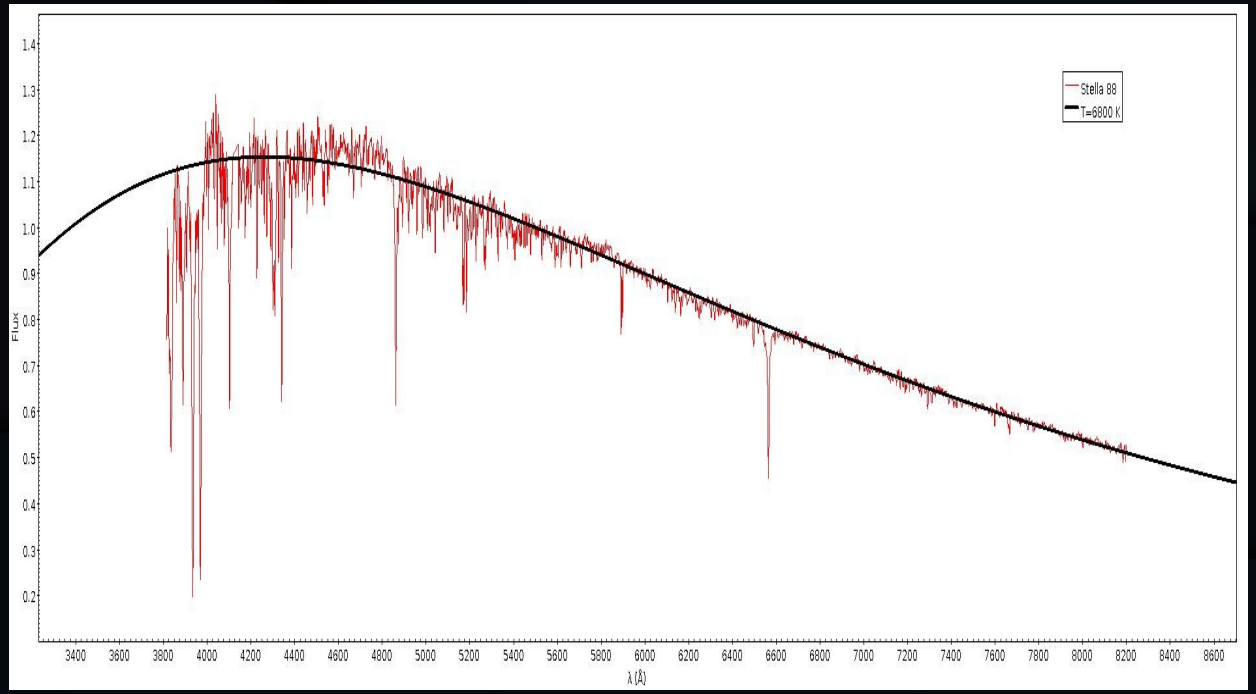


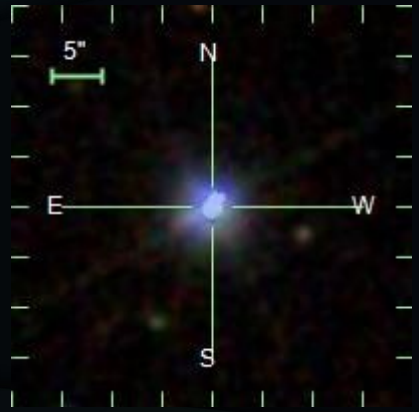
STELLA 85, CLASSE “A0”



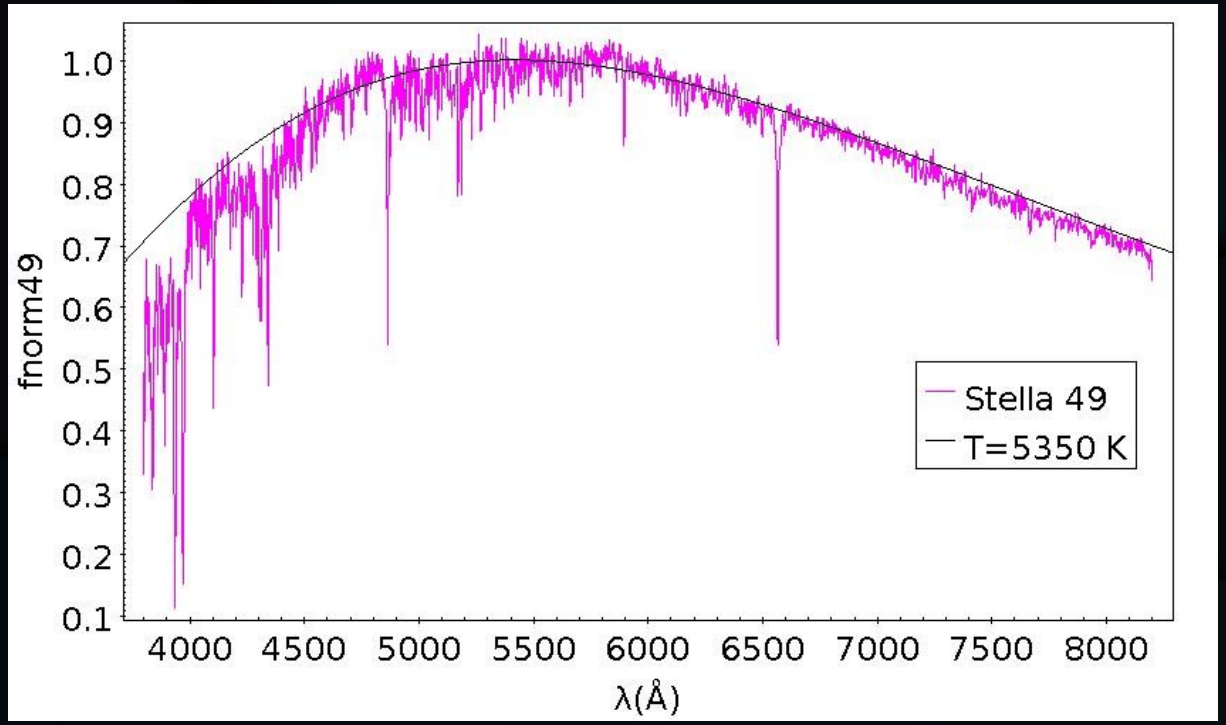


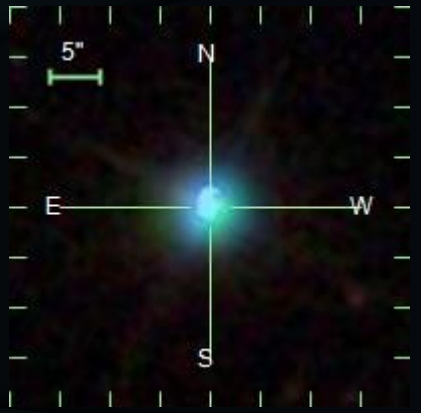
STELLA 88, CLASSE “F2”



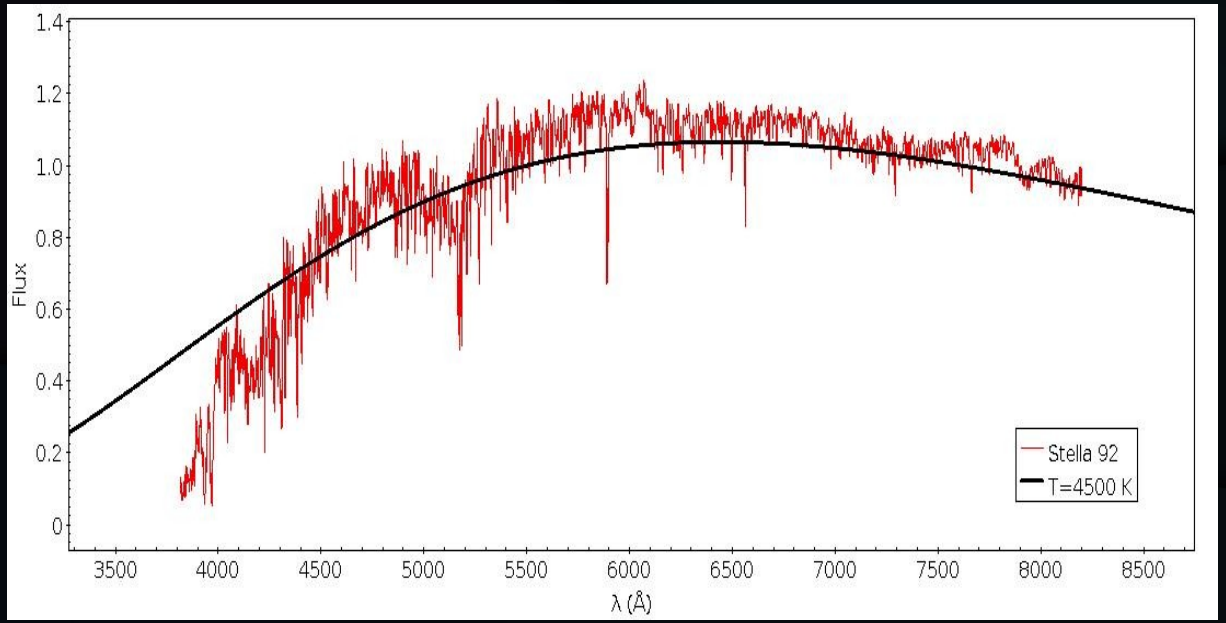


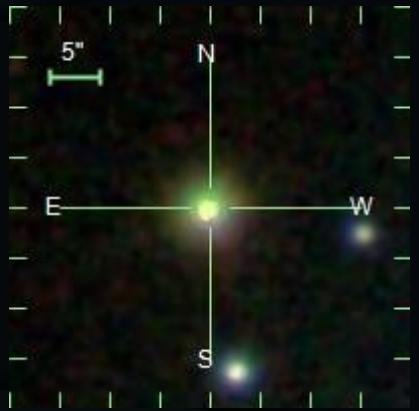
STELLA 49, CLASSE “G2”



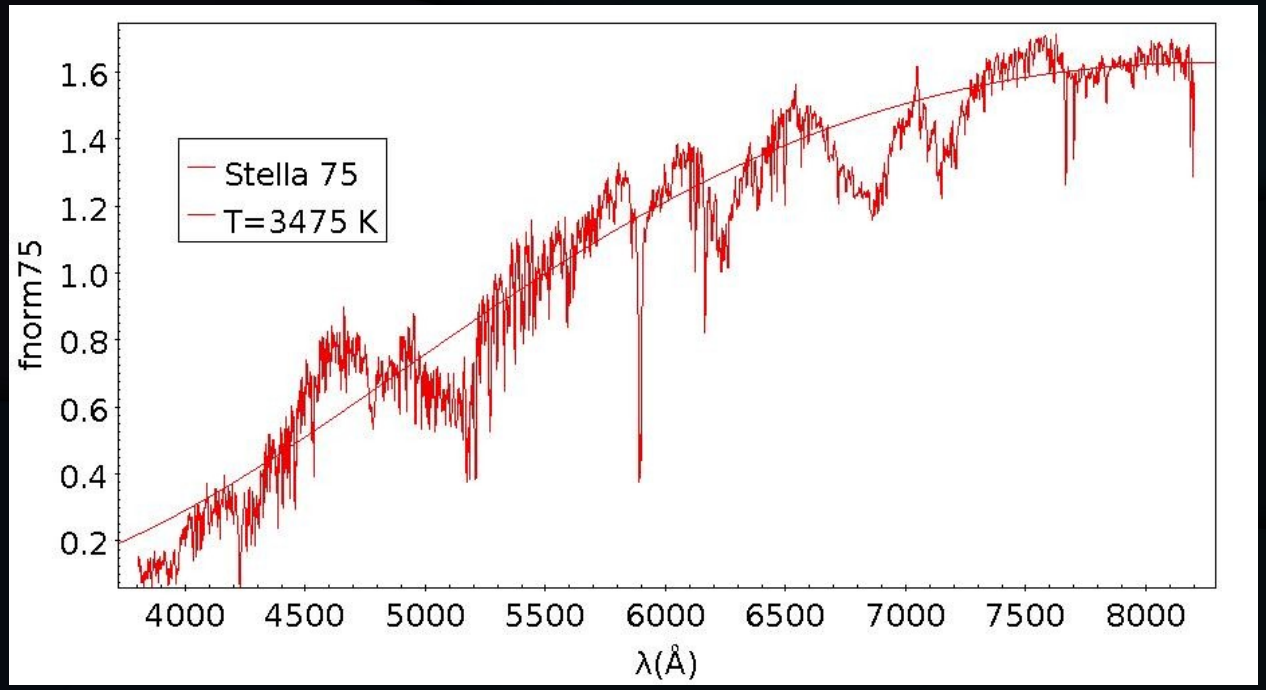


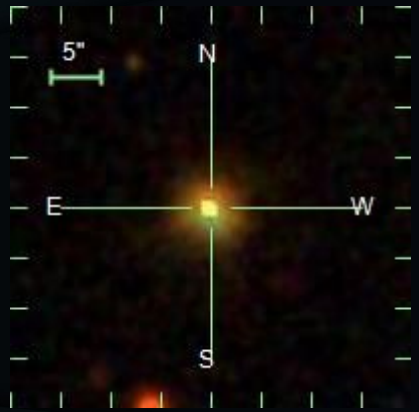
STELLA 92, CLASSE “K3”





STELLA 75, CLASSE “M0”





CLASSIFICAZIONE DIAGRAMMA