

القياسات الفلكية

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أستاذ في المعهد العالي لبحوث الليزر وتطبيقاته – جامعة دمشق

12

مهمة فرع القياسات الفلكية

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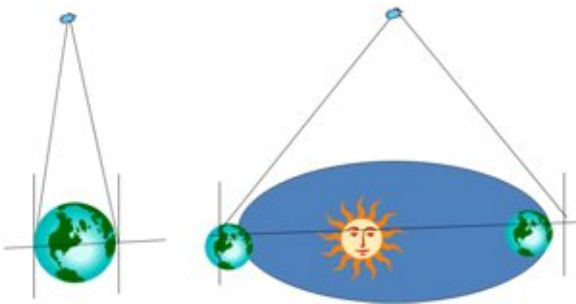
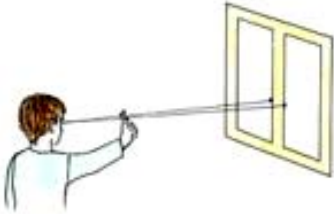
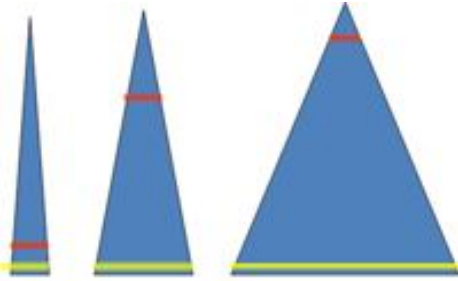
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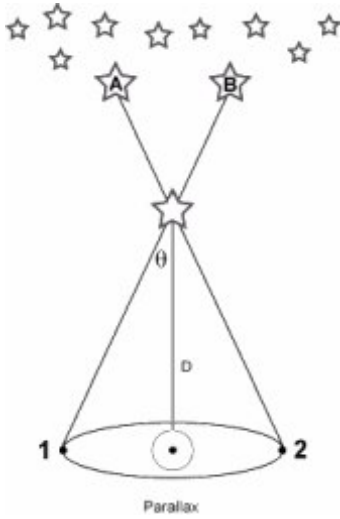
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حركة اختلاف المنظر



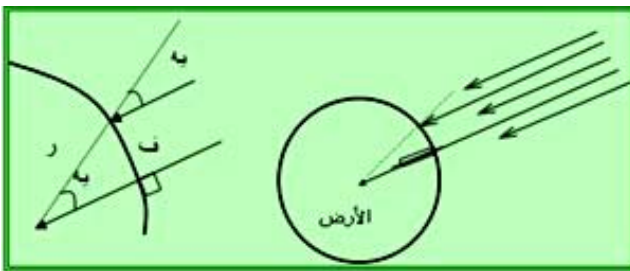


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أمثلة على القياسات الفلكية

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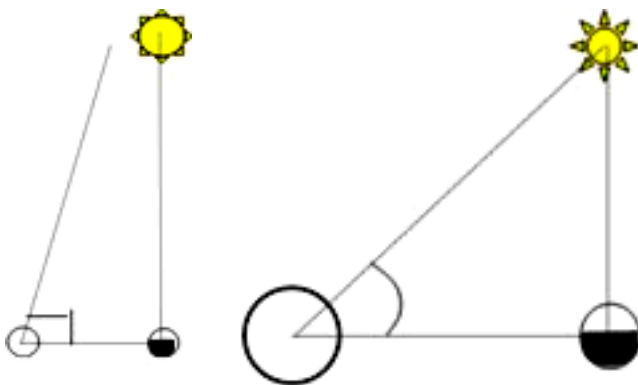
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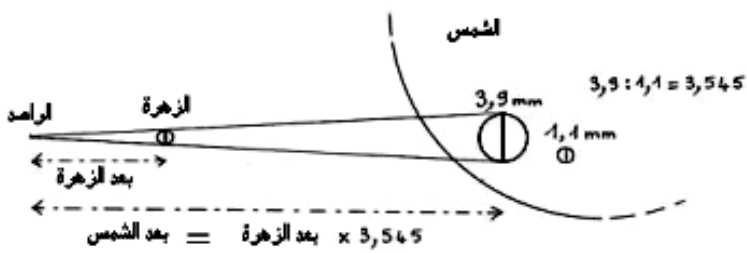
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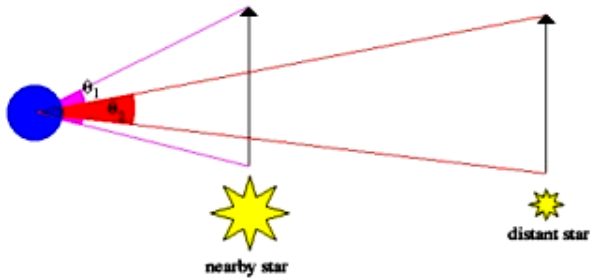
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Proper Motion



even though both stars are moving at the same velocity, the nearby star marks out a larger angle, θ_1 then the distant star's angle, θ_2

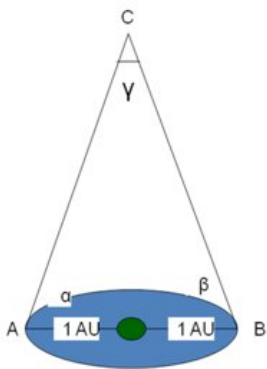
- $10^8 \times 1.49$: (AU astronomical unit)
- $10^{12} \times 9.46$: (LY light year)
- $10^{13} \times 3.07$: (P parsec)

$$\begin{aligned}
 6.479 &= 1 \bullet \\
 206.265 &= 1 \bullet \\
 3.2 &= 1 \bullet
 \end{aligned}$$

$$\frac{AC}{\sin \beta} = \frac{AB}{\sin \gamma} = \frac{BC}{\sin \alpha}$$

$$\gamma = 180^\circ - \alpha - \beta$$

$$\frac{AC}{\sin \beta} = \frac{AB}{\sin(180^\circ - \alpha - \beta)}$$



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(r)

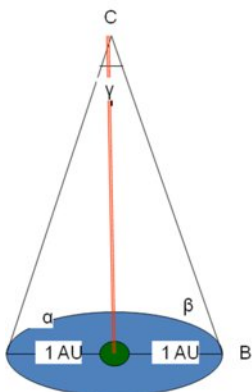
$$r = \frac{206265 \text{ AU}}{\gamma}$$

$$r = \frac{1 \text{ P}}{\gamma}$$

$$r = \frac{3.2 \text{ LY}}{\gamma}$$

(γ)

(r)



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الحسابات الطيفية

(v)

17

(H)

(R)

$$V = H \times R$$

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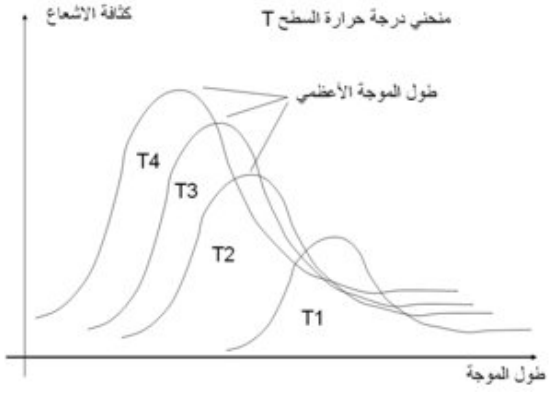
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$$T = 2.9 \times 10^3 / \lambda$$

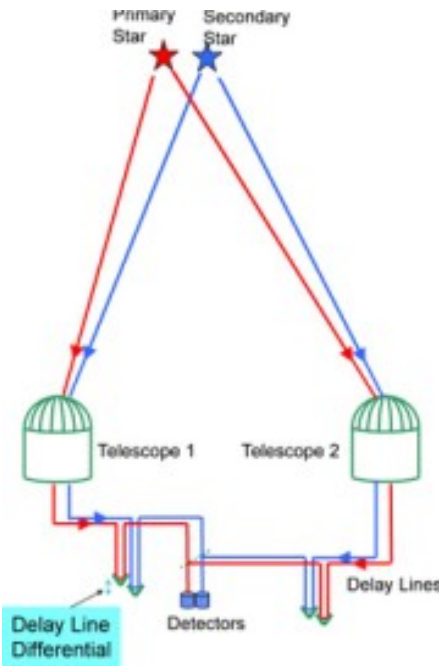
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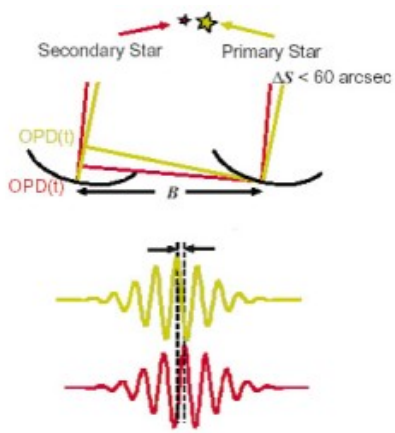
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