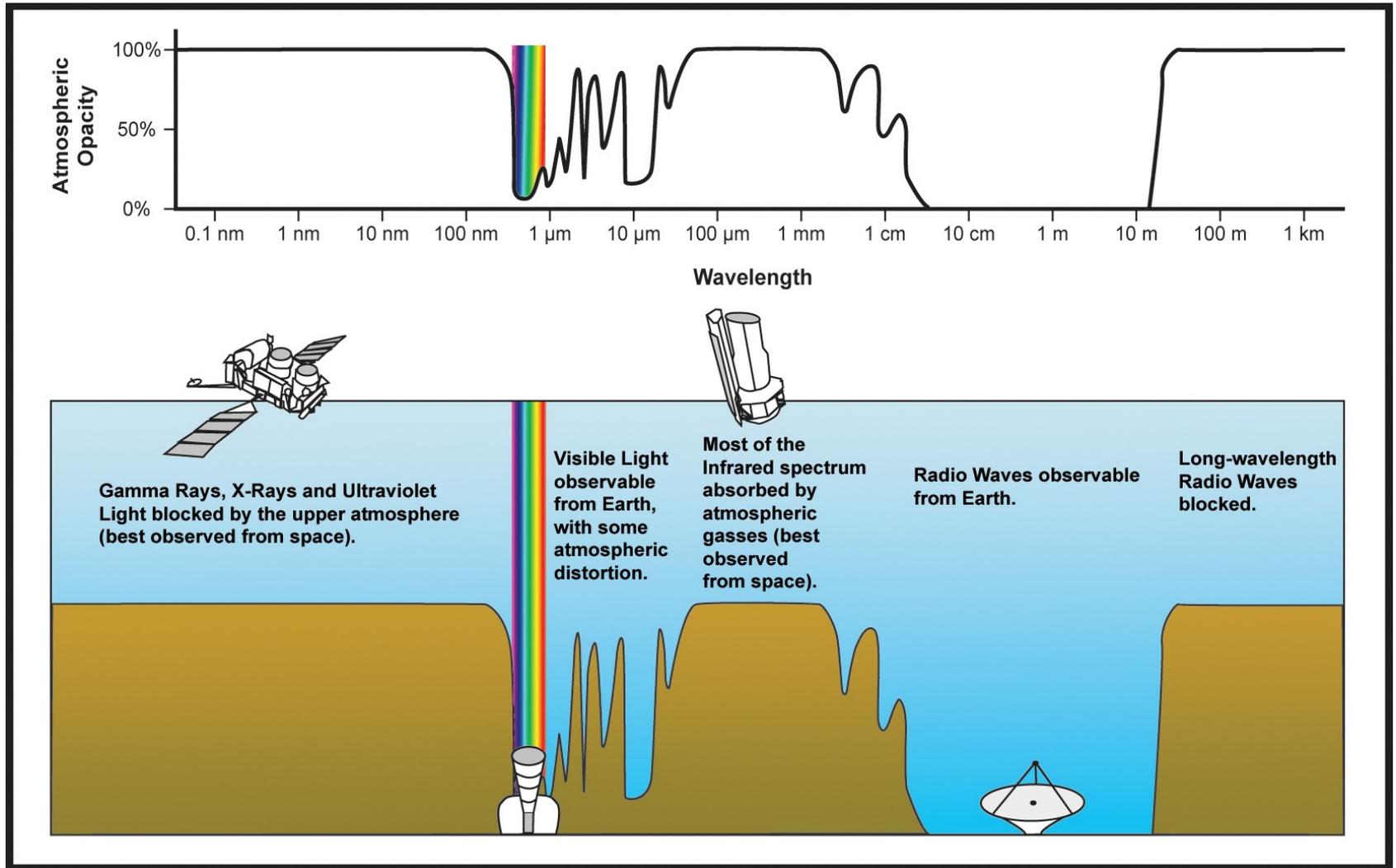


La observación en Astronomía

Juan Fabregat

- La Astronomía es una ciencia observacional
- Estudia la información que llega desde fuera de la atmósfera terrestre
- La mayor parte de esa información la constituyen ondas electromagnéticas
- La atmósfera afecta la observación de la radiación electromagnética



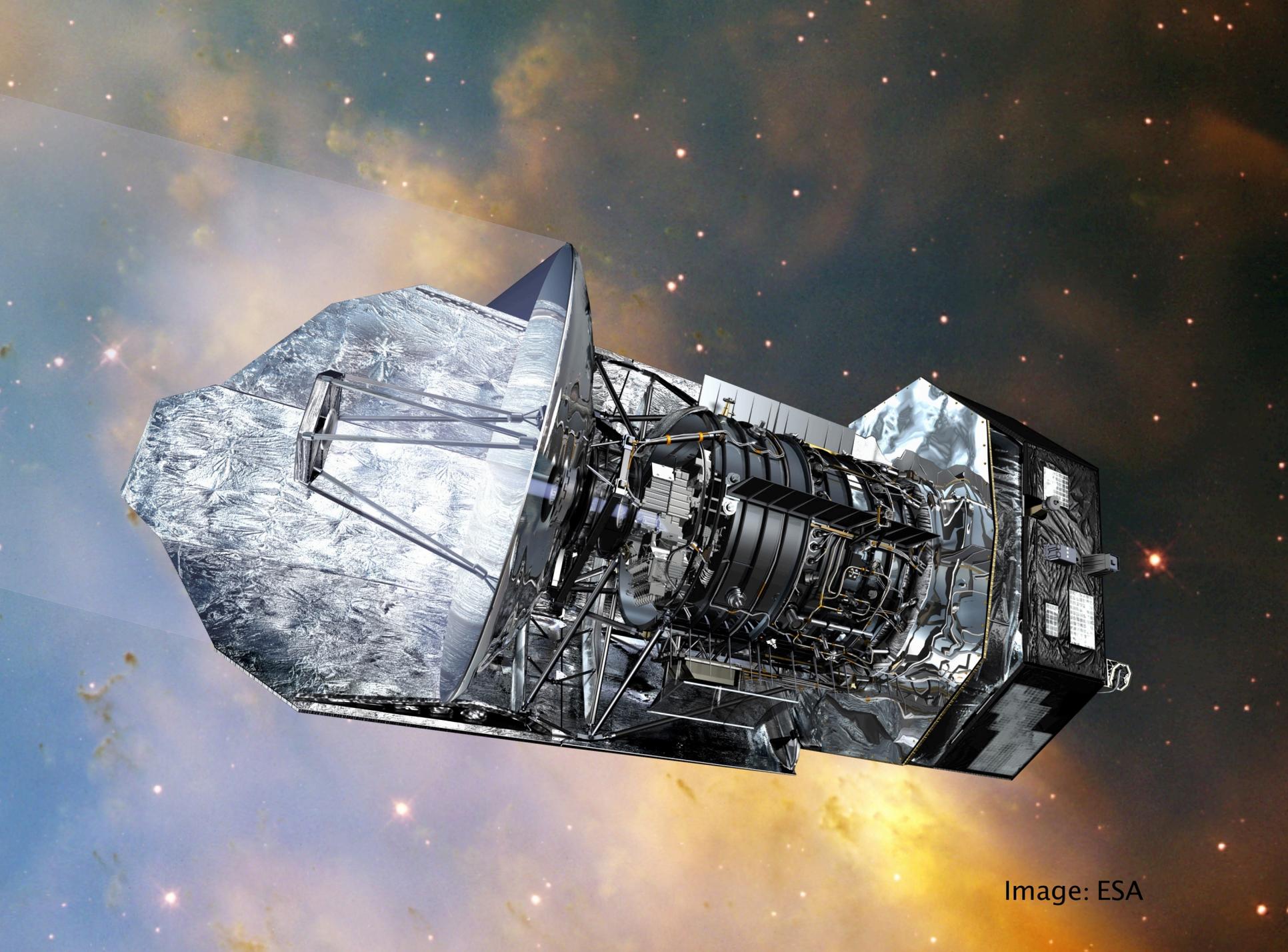
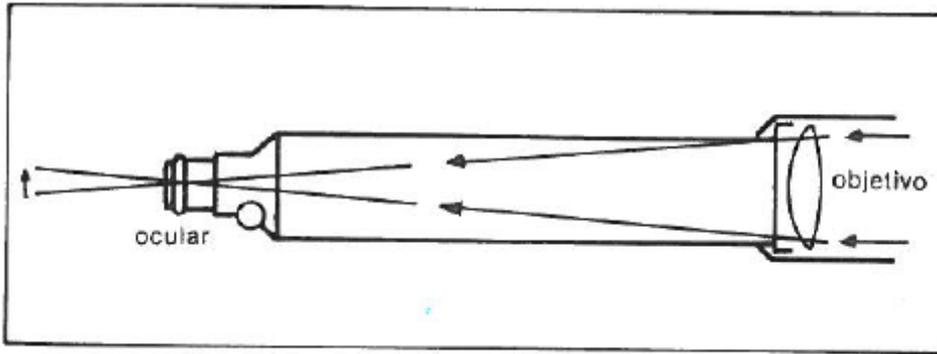


Image: ESA

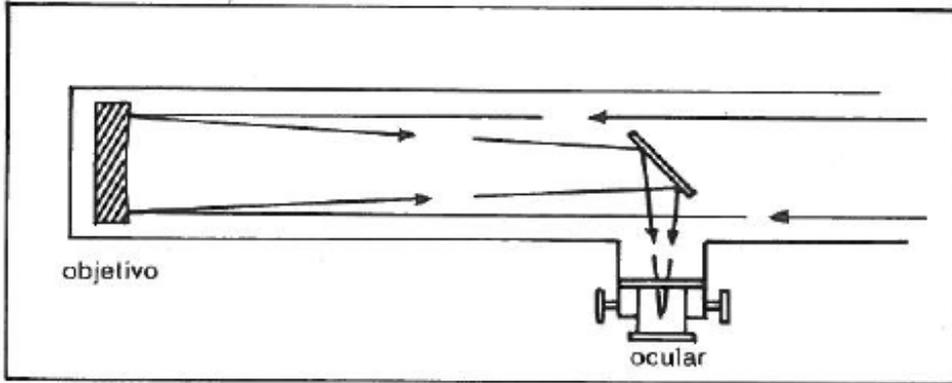




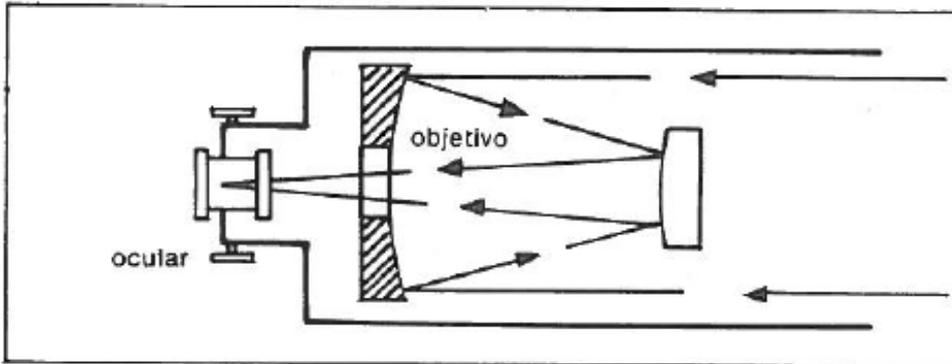
Imagen: Luis Argerich



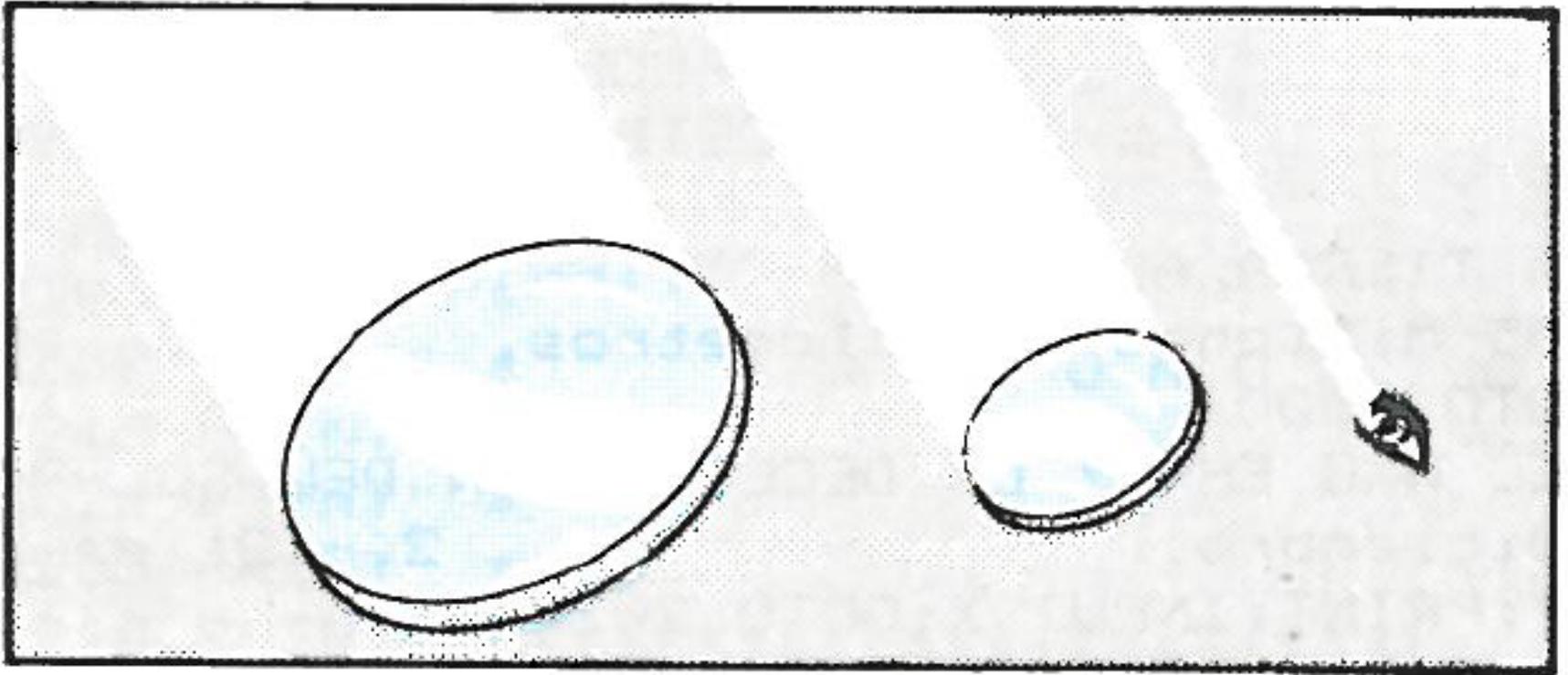
Telescopio refractor

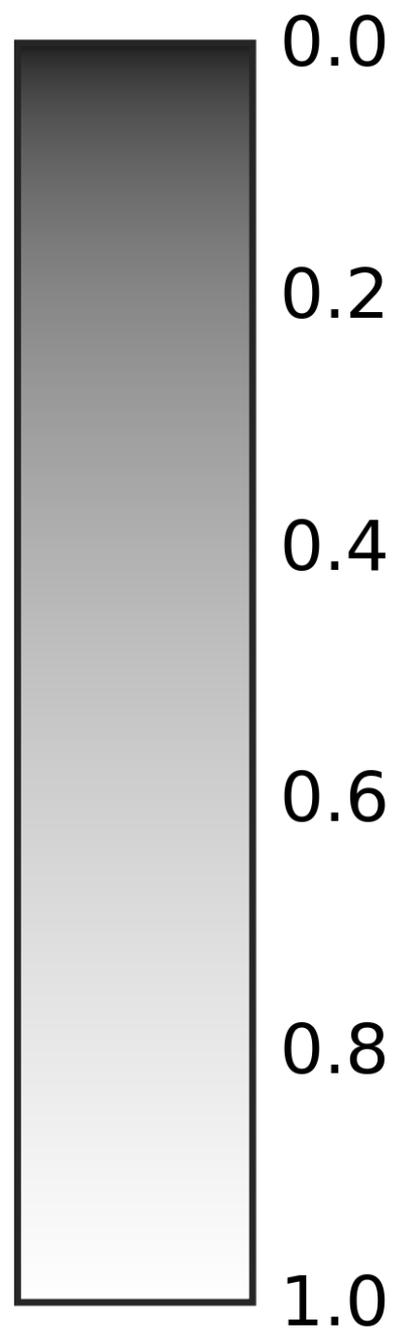
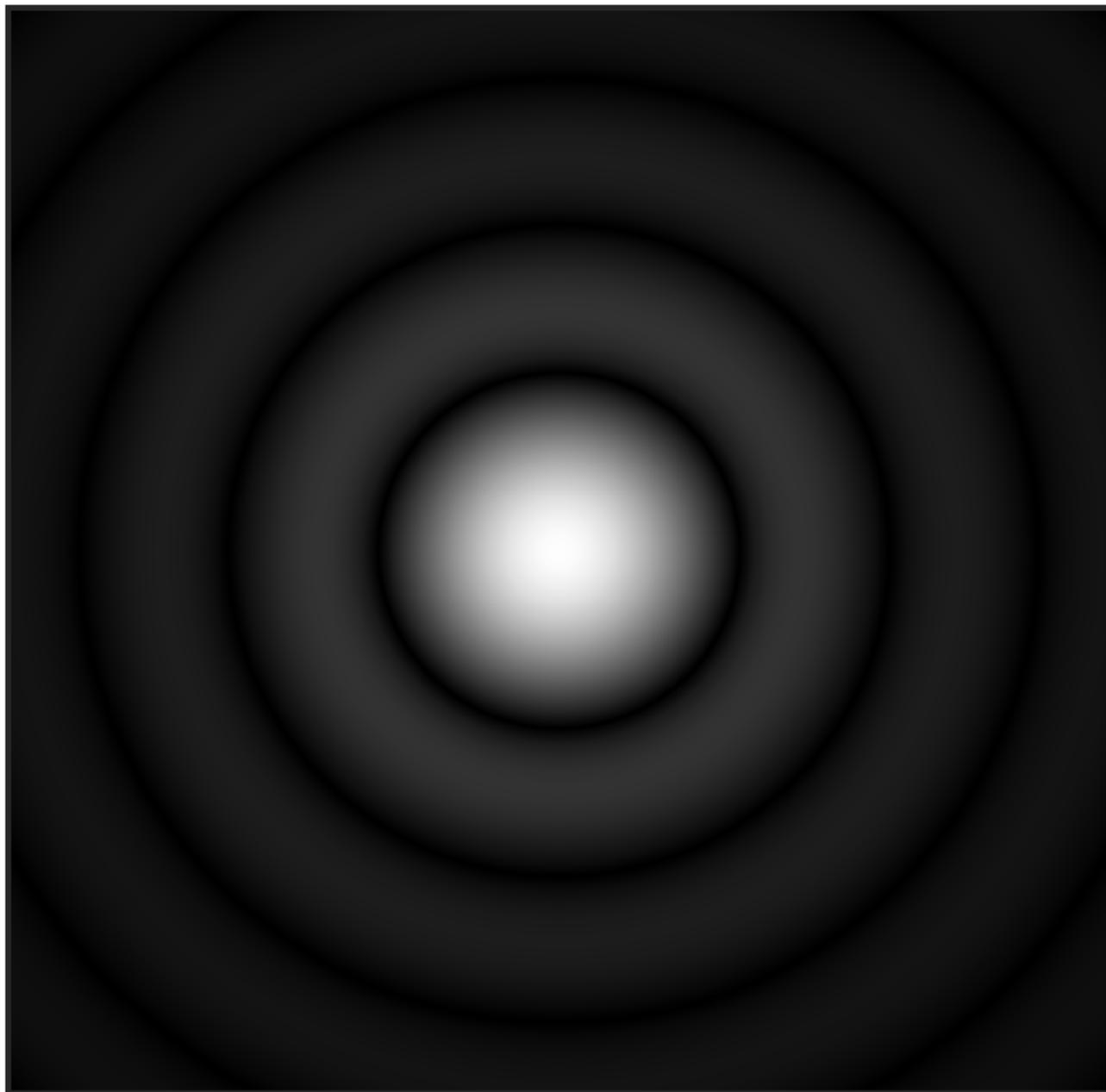


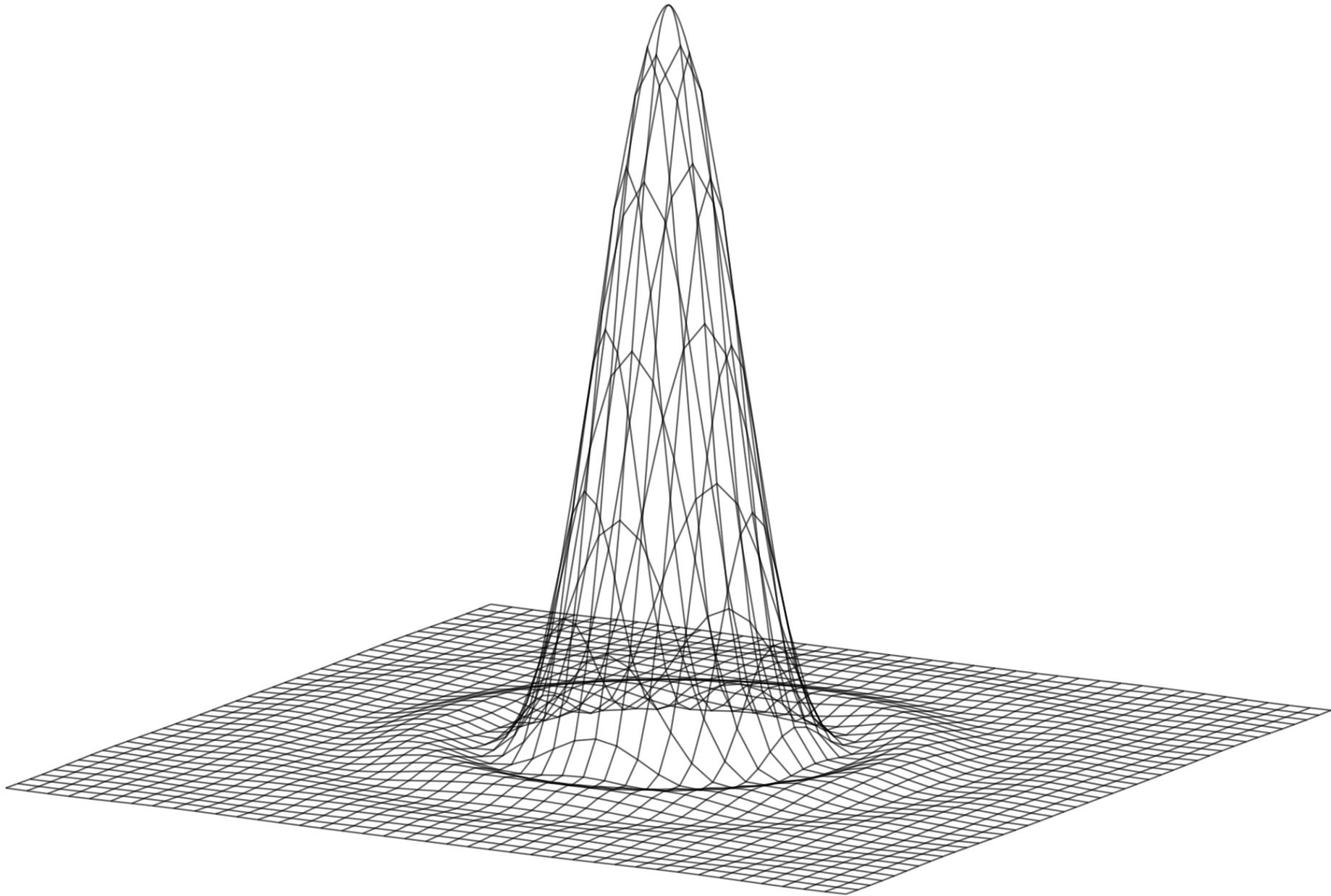
Telescopio reflector

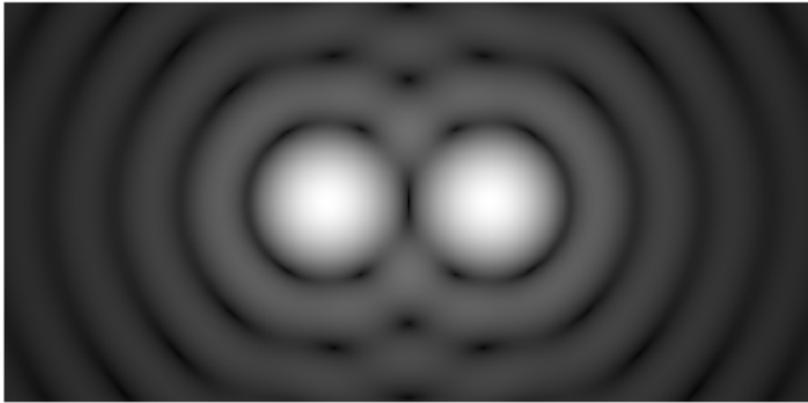


Potencia



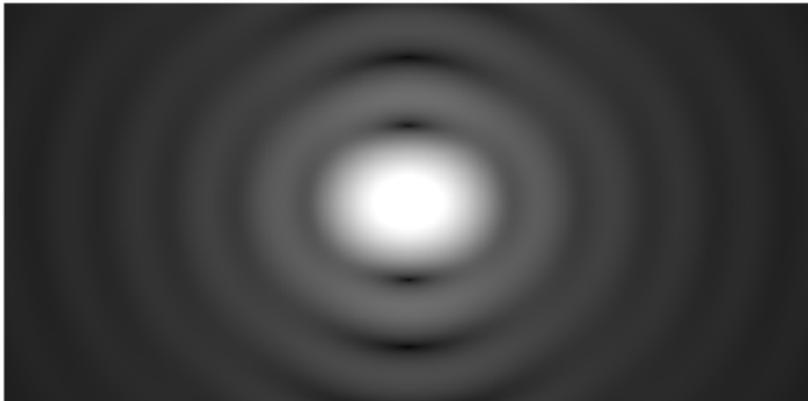
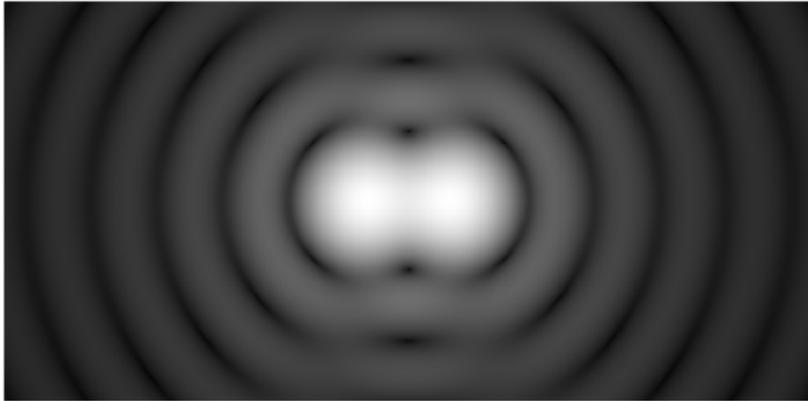






Resolución:

Criterio de Rayleigh



Resolución

- $\sin \theta \sim \theta = 1.22\lambda/D$

- En el visible ($\lambda = 550$ nm.)

10 cm.	1.4''	
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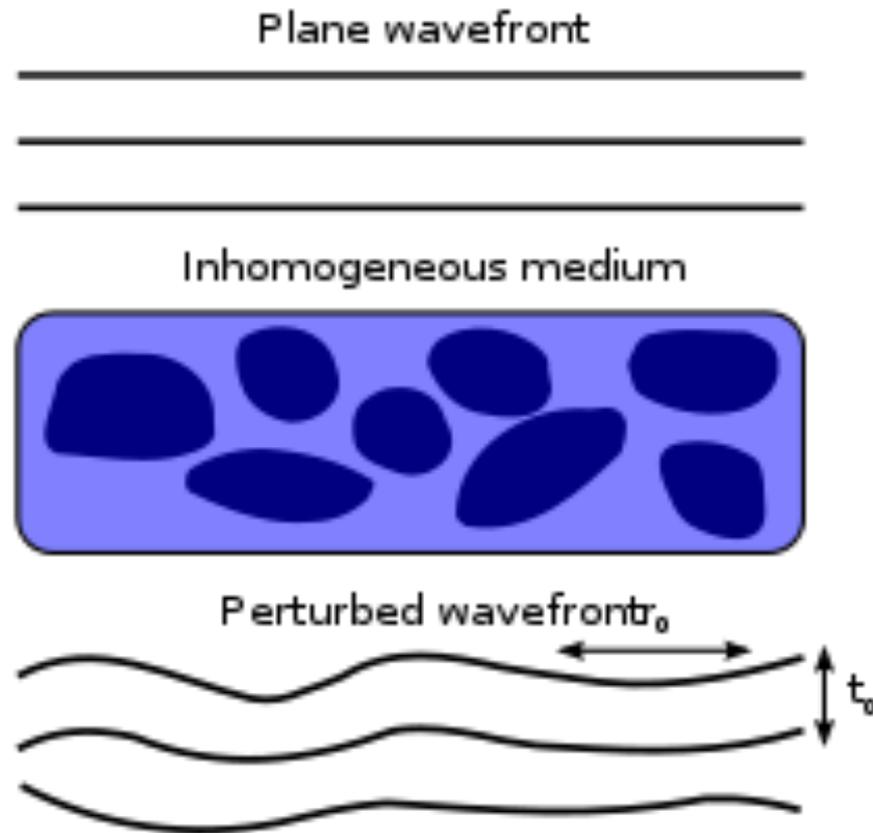
25 cm.	0.6''	
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1 m.	0.14''	
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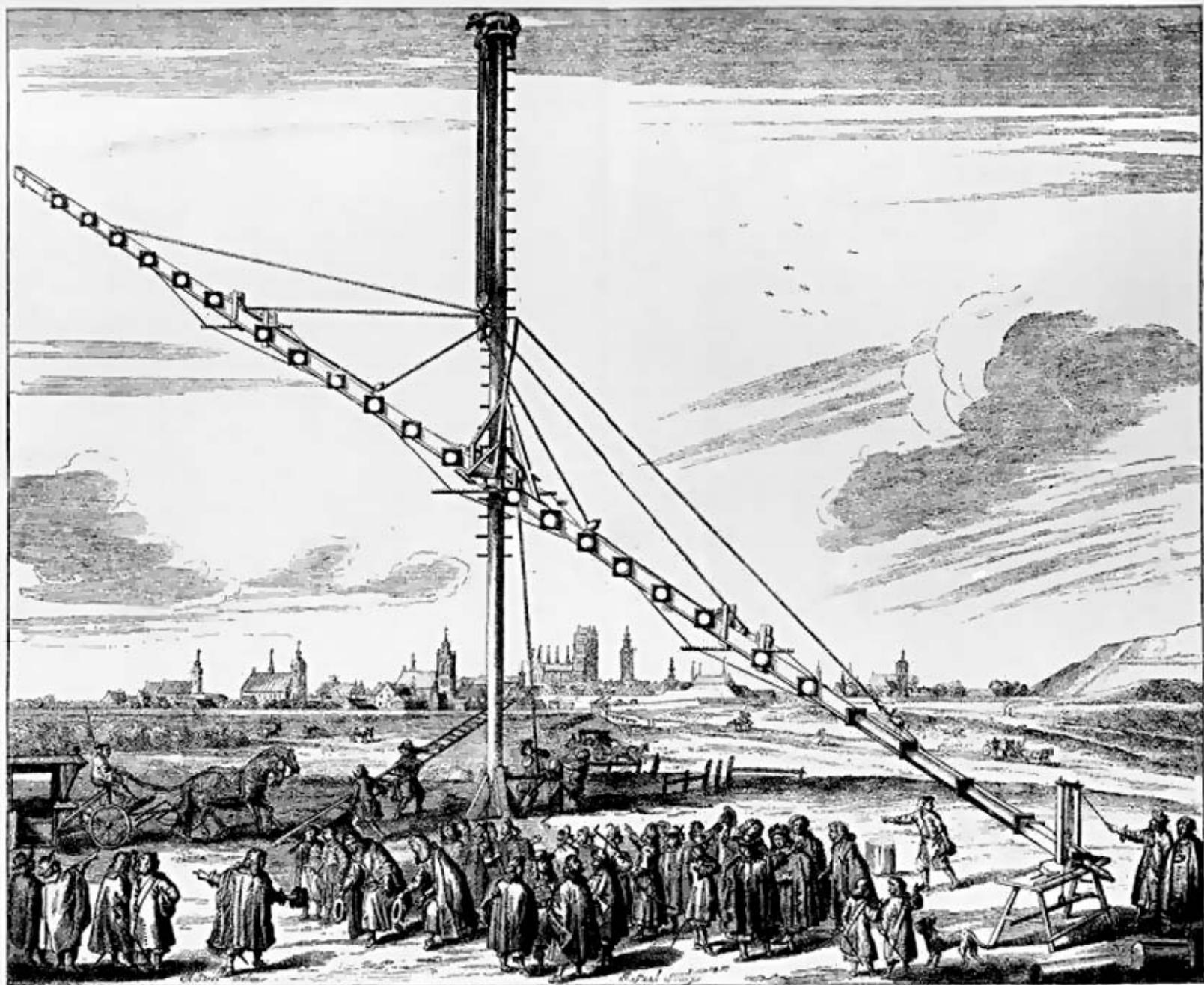
2.5 m.	0.06''	Hubble
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10 m.	0.01''	Keck, GTC
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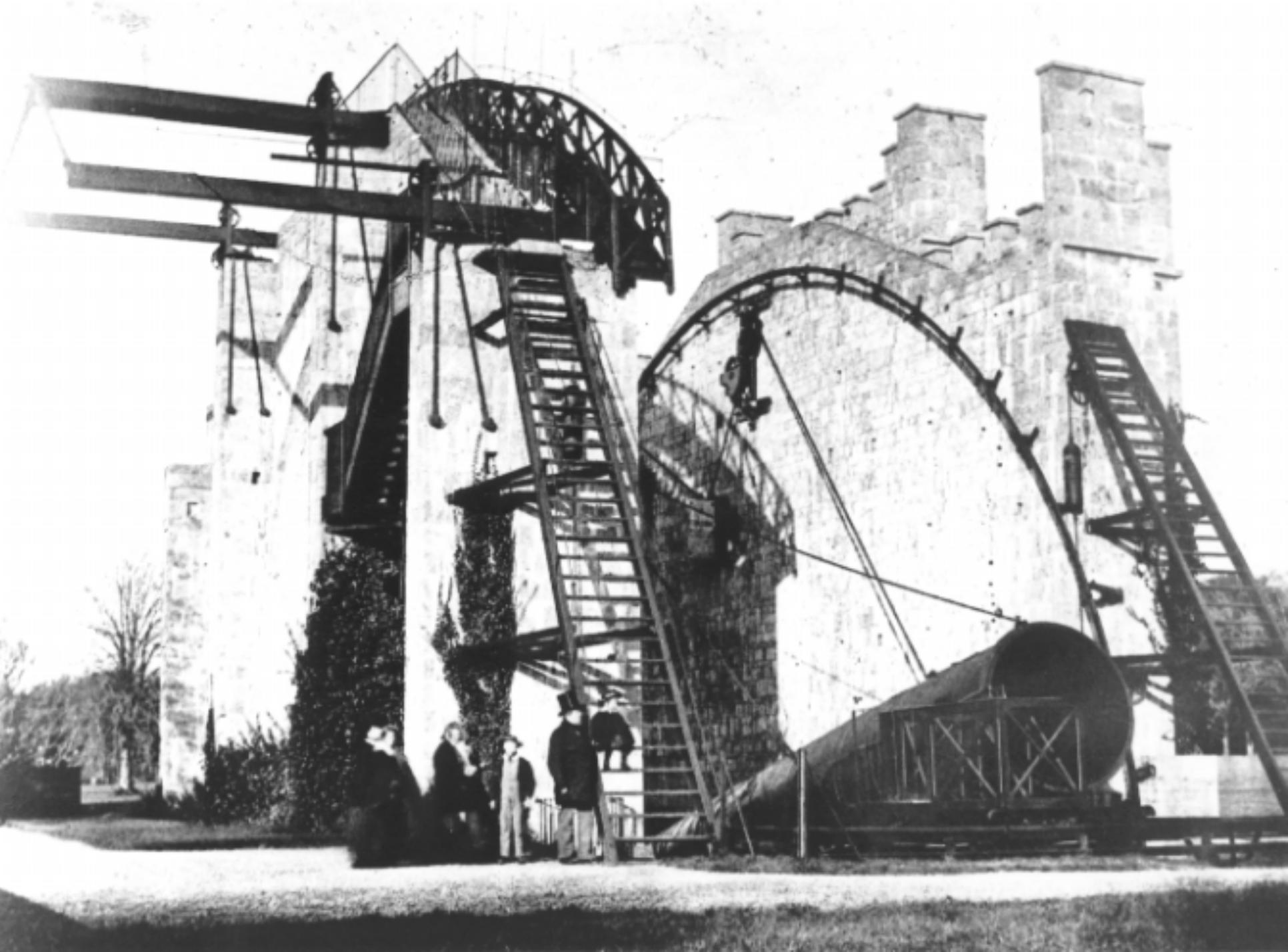
Turbulencia atmosférica



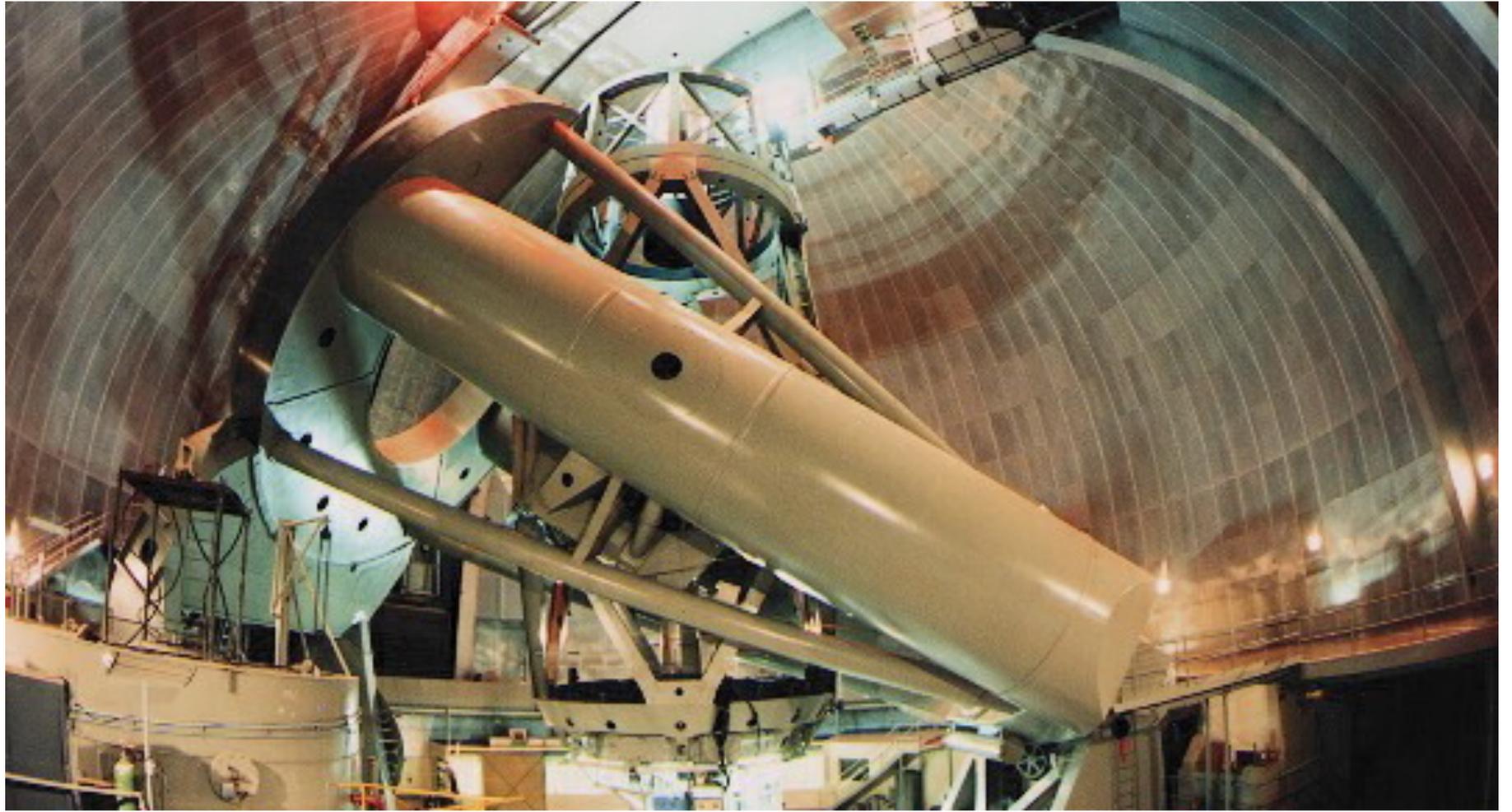












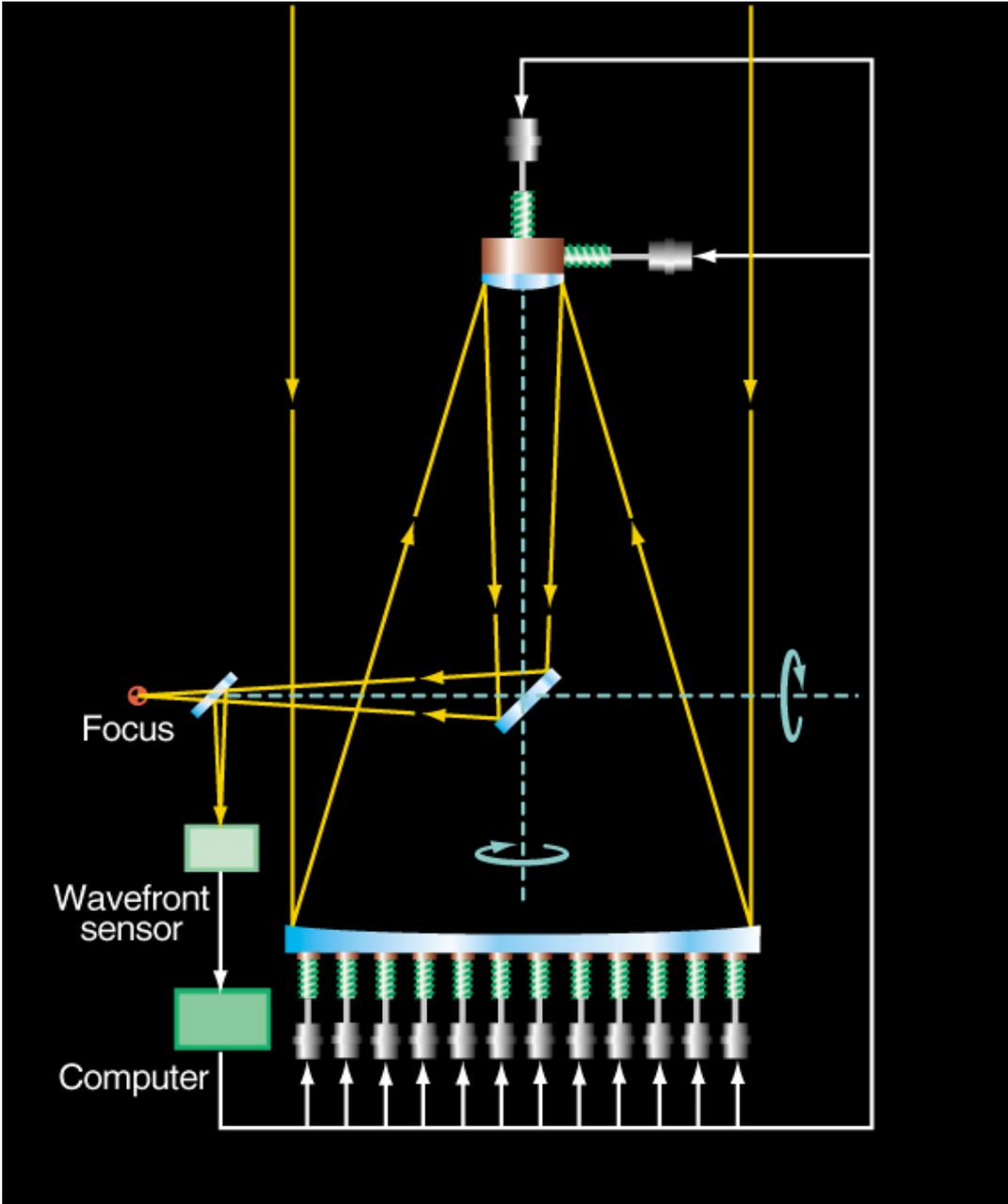


Imagen: ESO

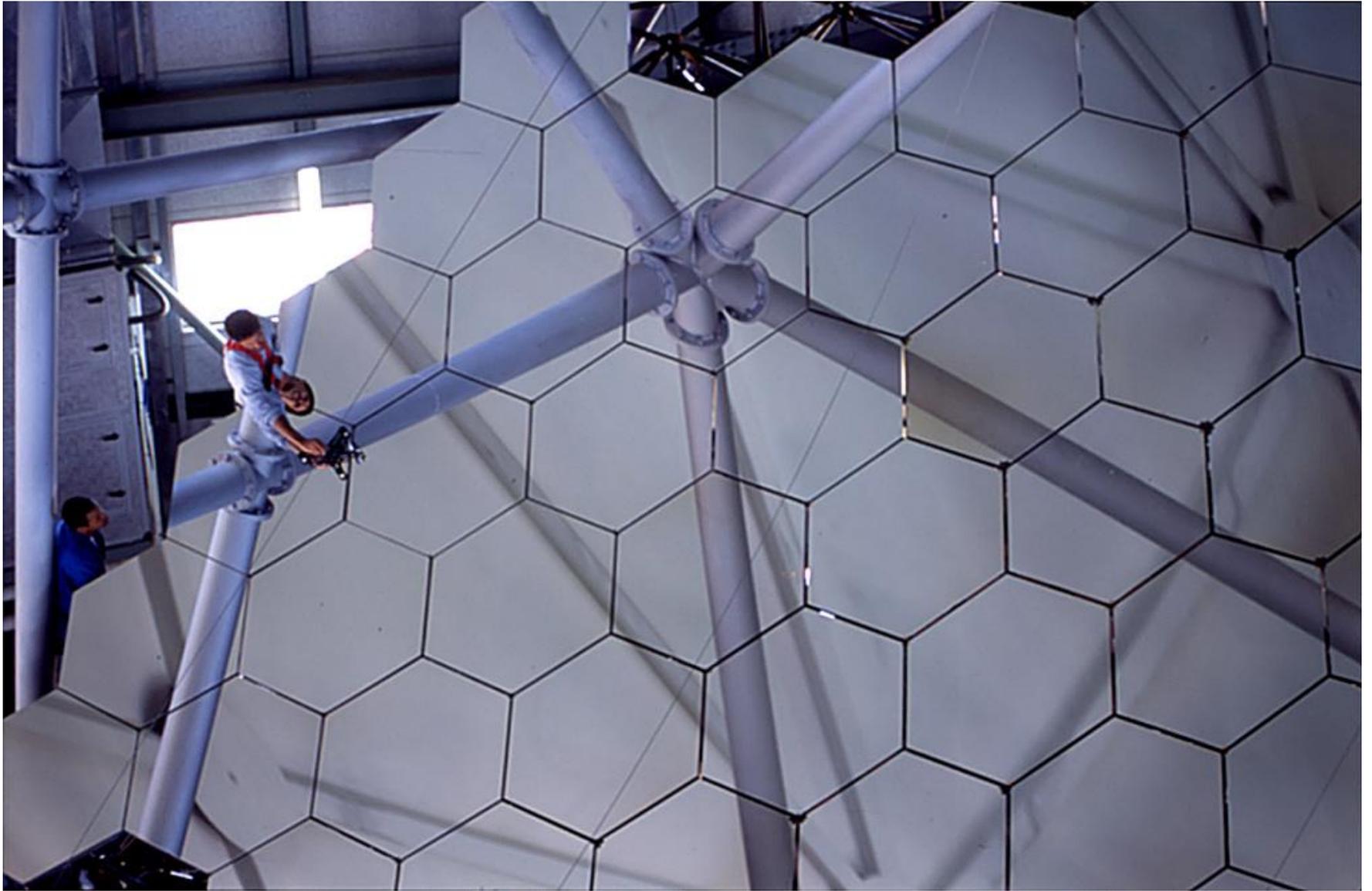


Imagen: Mark J. Roe y Janusz Kaluzny

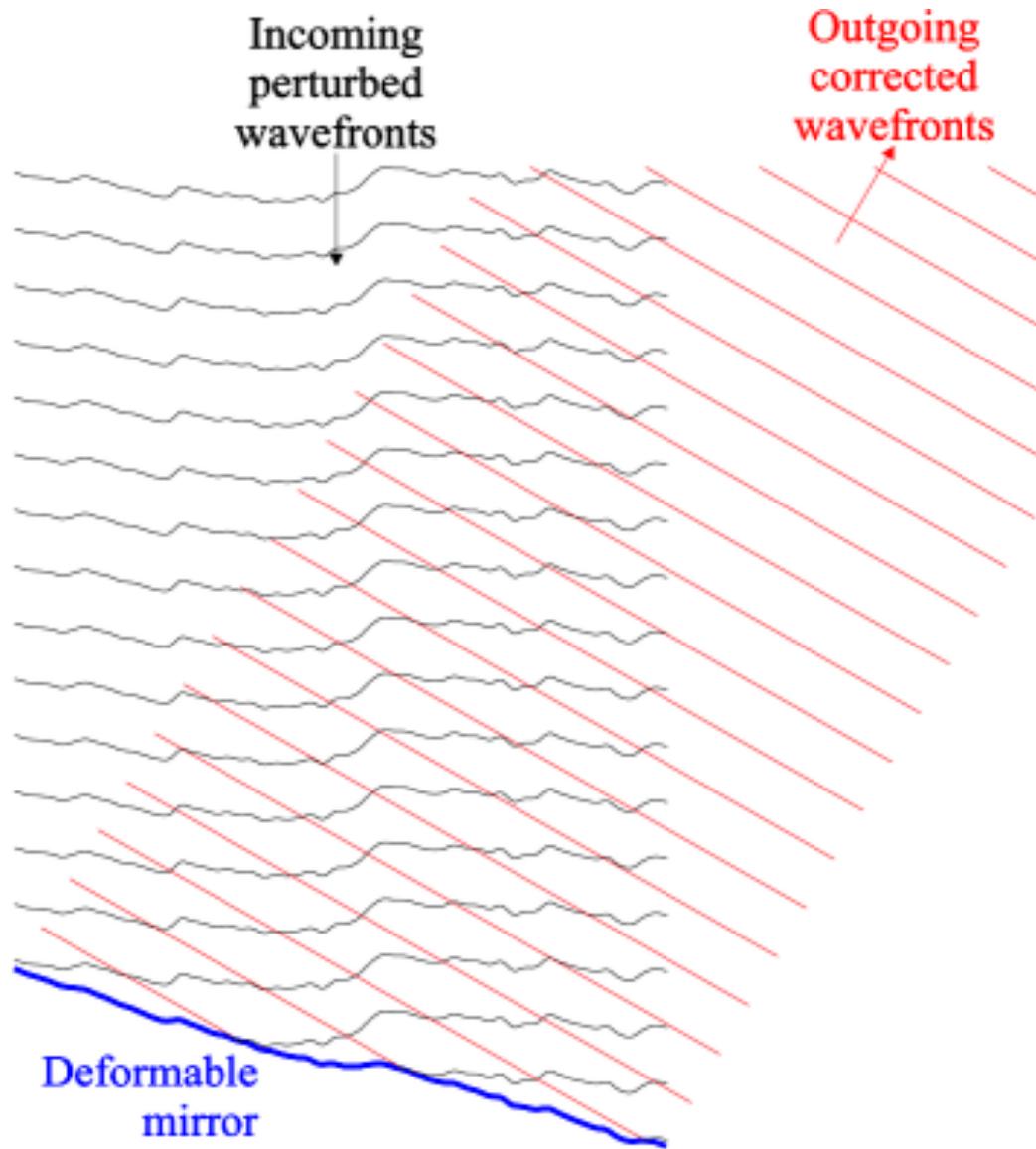


Imagen: Bob Tubbs

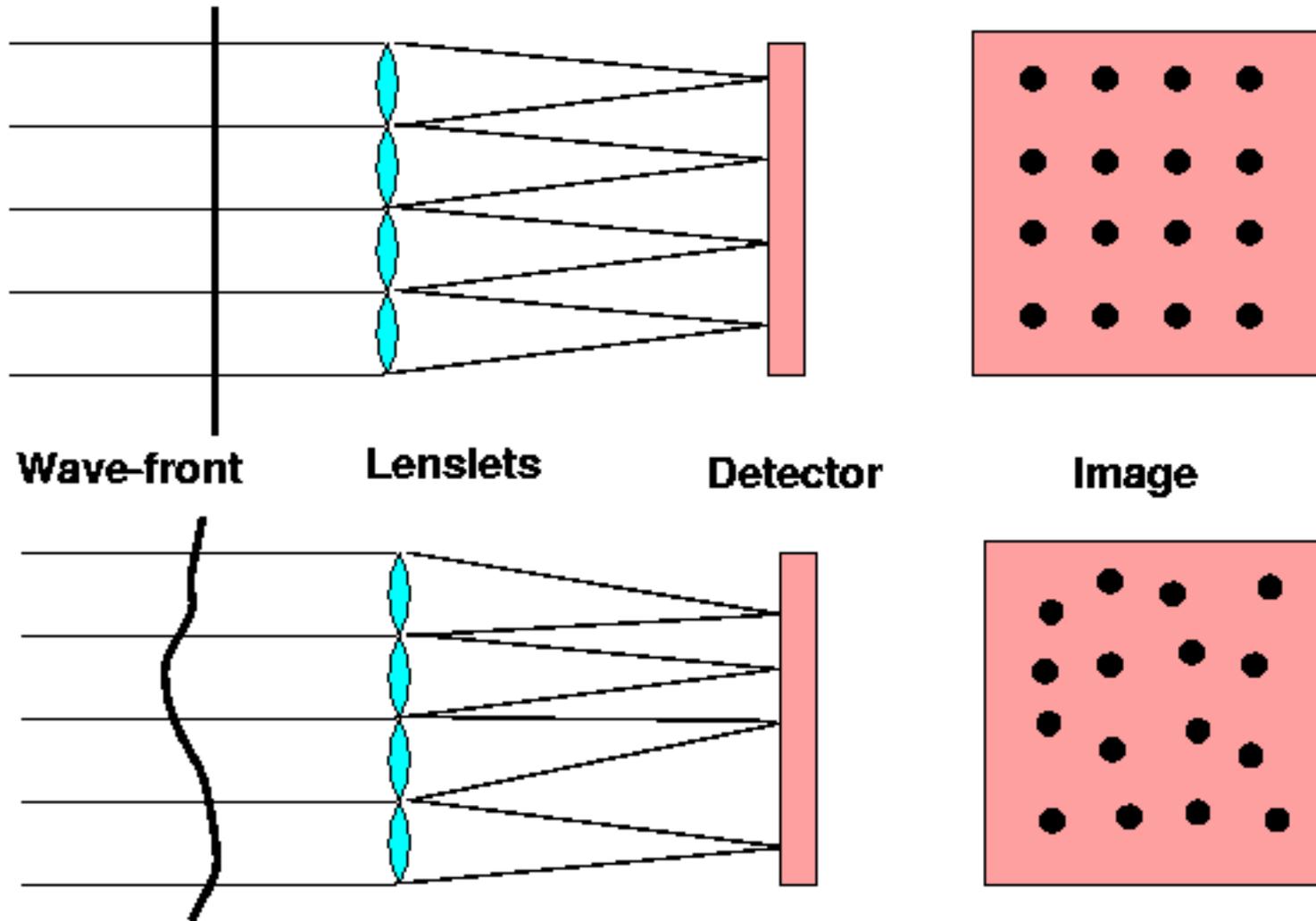


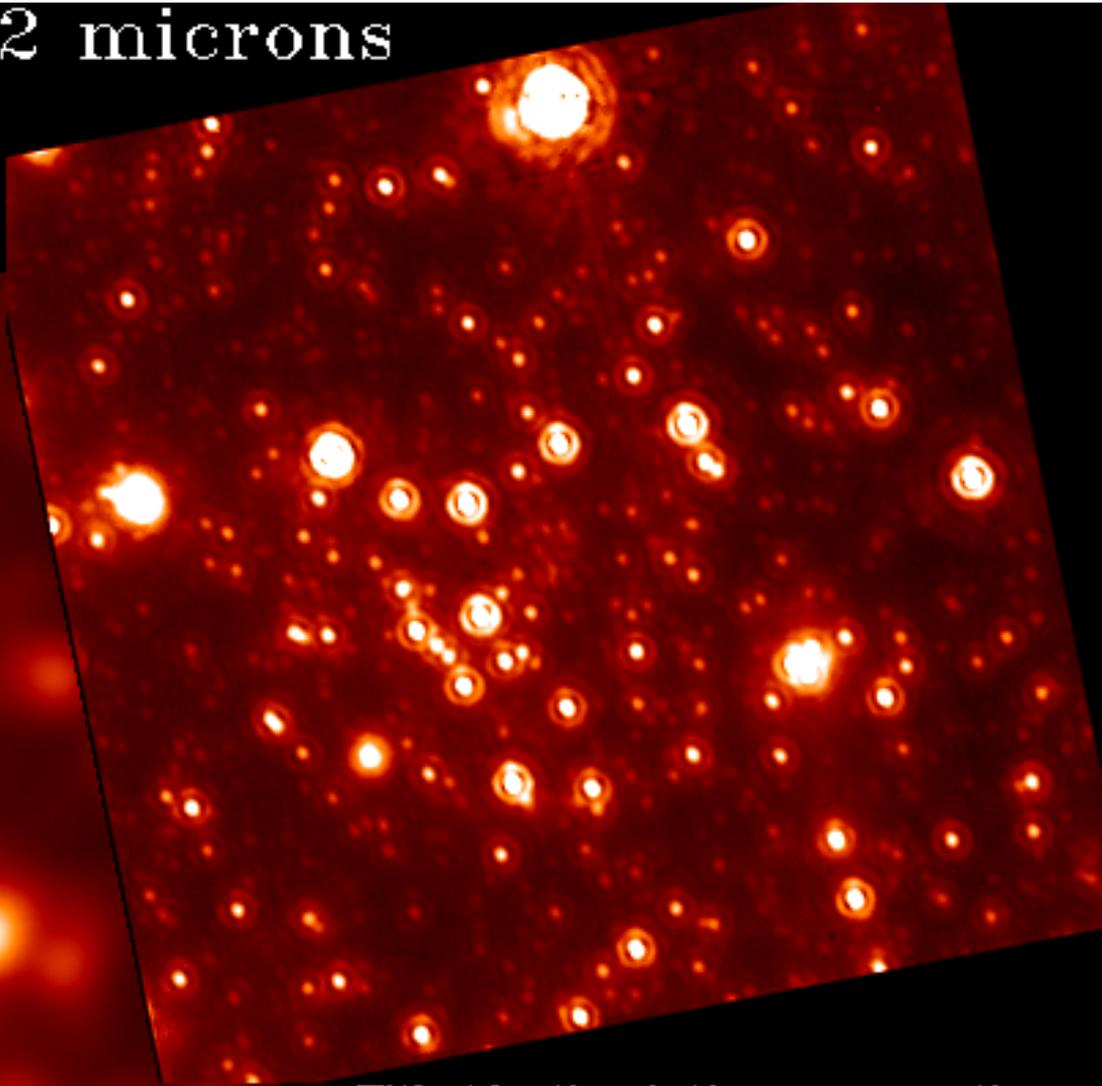
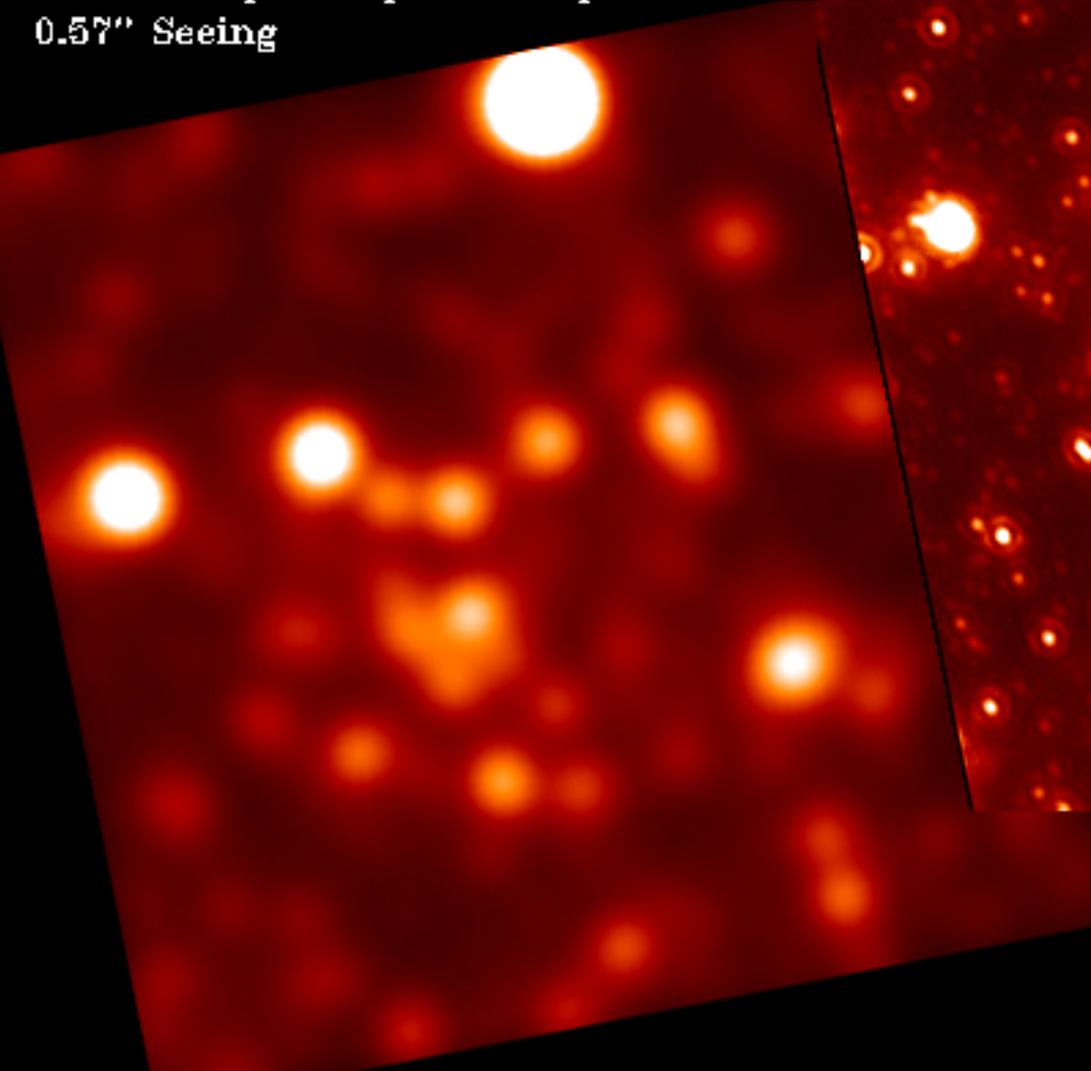
Imagen: A. Tokovinin, CTIO



Galactic Center / 2.2 microns

13"x13" Field. 15 minutes exposure.

Without Adaptive Optics compensation
0.57" Seeing



With Adaptive Optics compensation
0.13" Full Width at Half Maximum

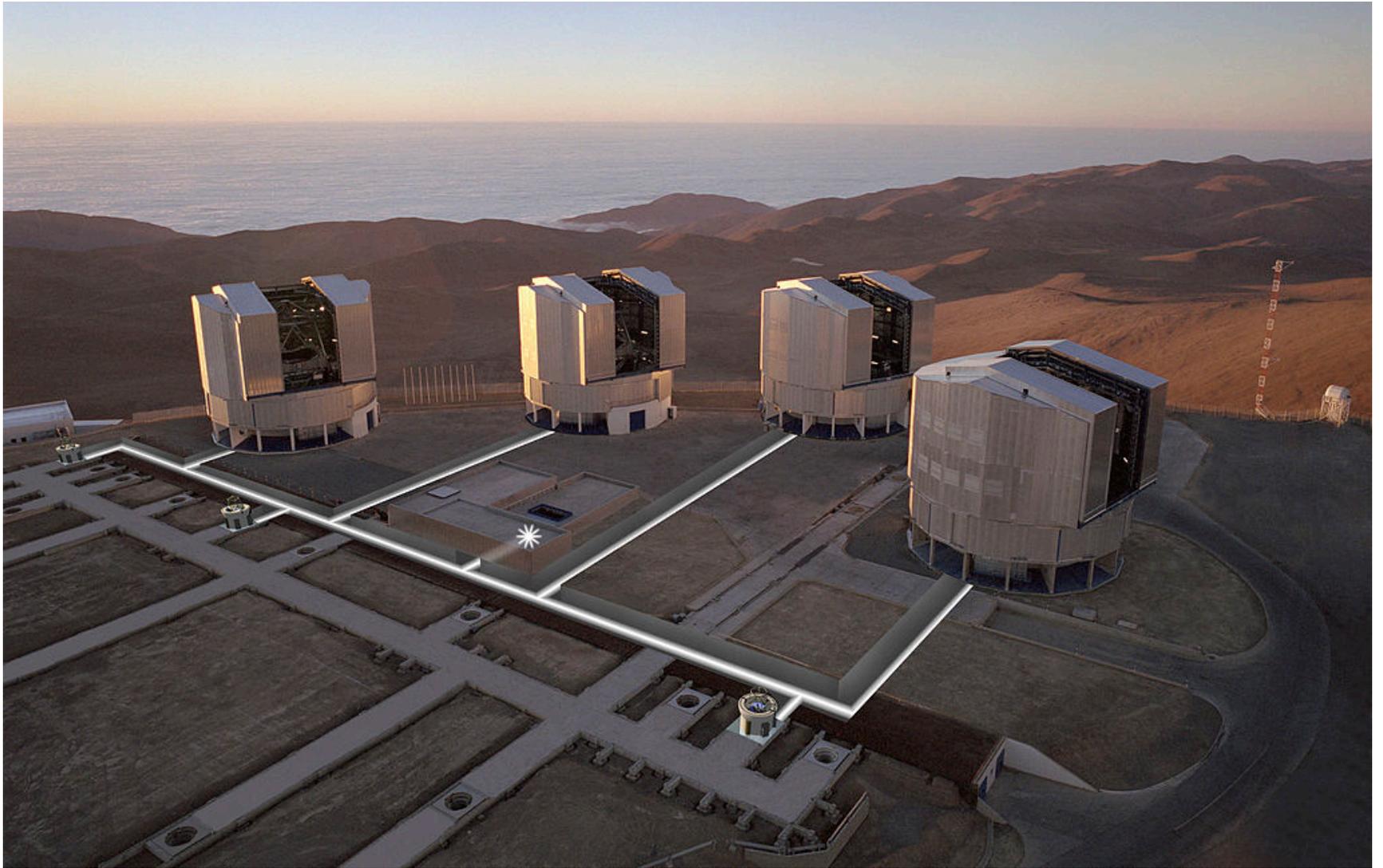


Imagen: ESO

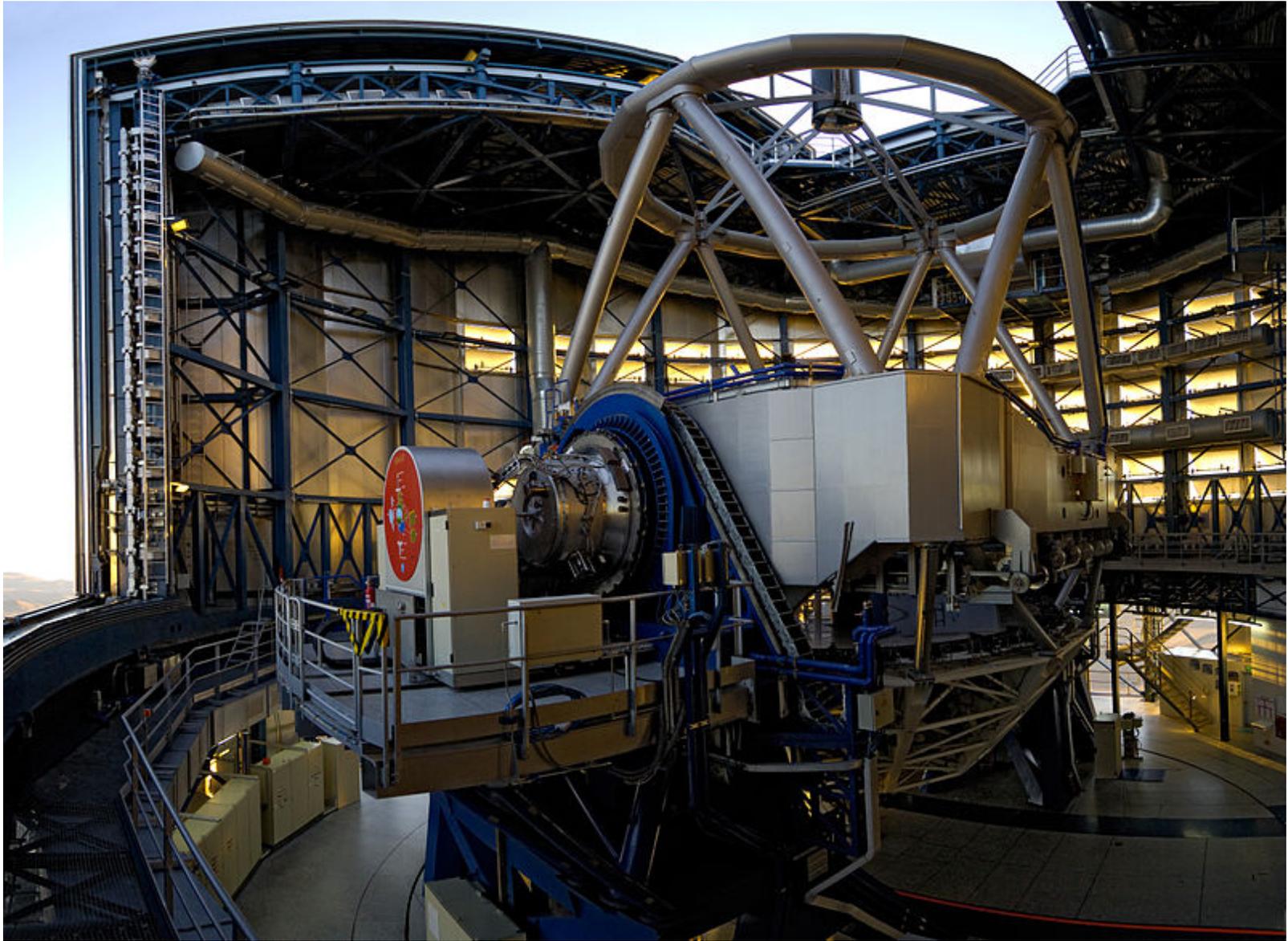


Imagen: G. Hüdepohl/ESO



Imagen: NASA/JPL

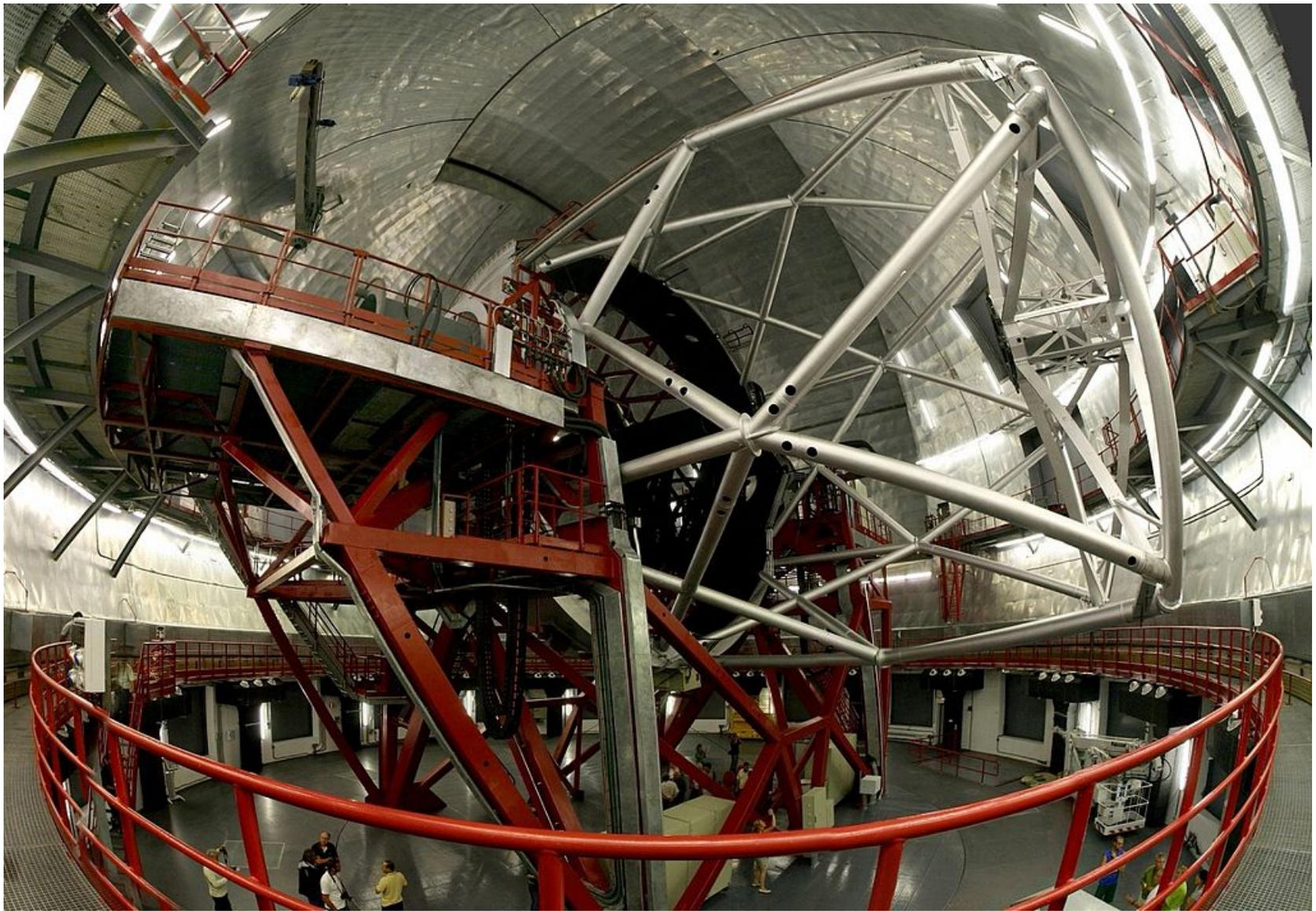


Imagen: H. Raab

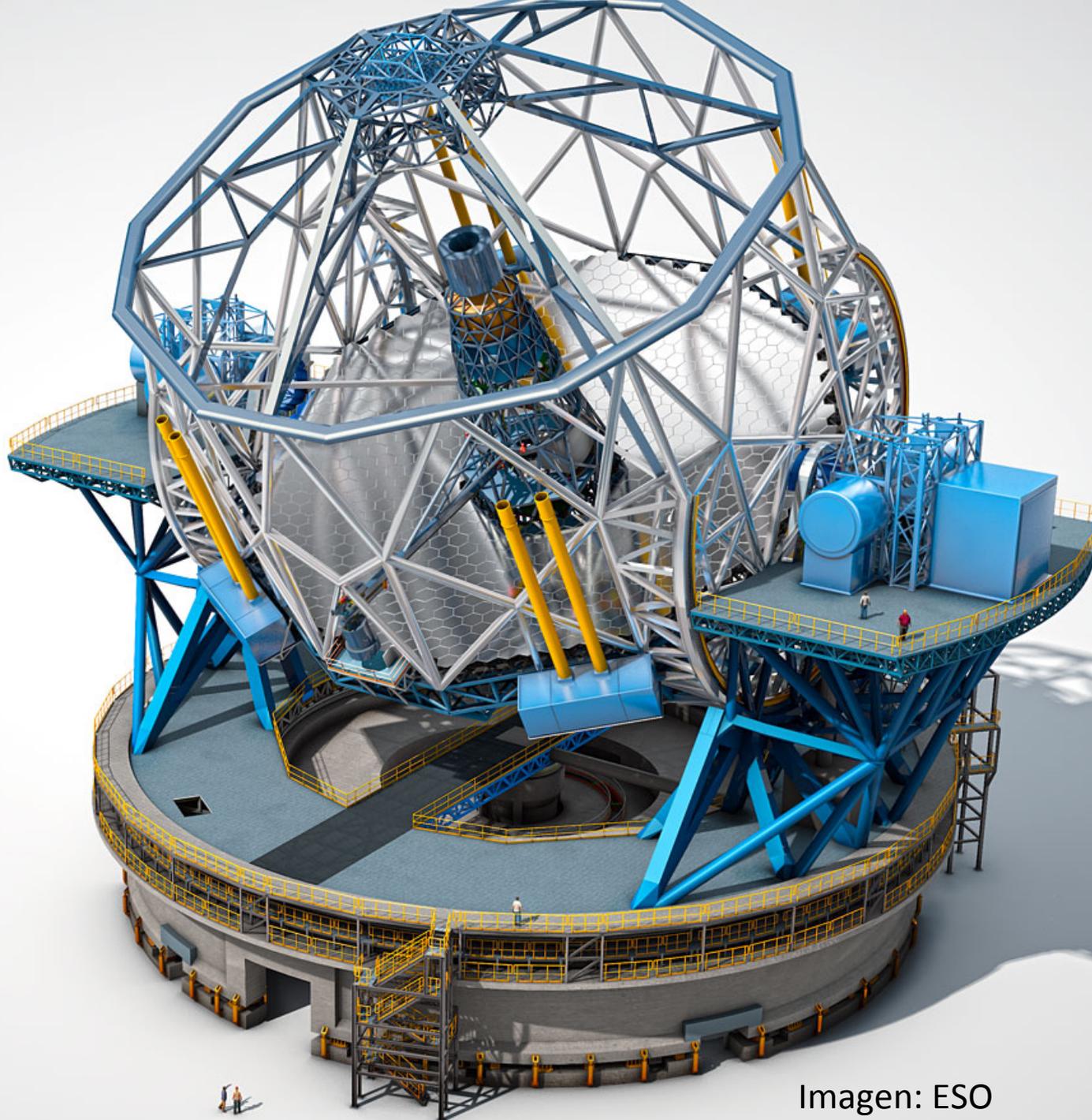


Imagen: ESO