Monday, February 23, 2026

Example: Angular resolution of the Gemini Telescope

Diameter = 8.1 m

Optical wavelength = 500 nm   (green)
                                        ↑
                                    center of the
                                        visible

formula: $\theta_{min, arcseconds} = 0.000252 \dfrac{\lambda_{nm}}{D_m}$

$$= 0.000252 \dfrac{500}{8.1}$$

$$= 0.016 \quad arcseconds$$

$\Rightarrow \theta_{min, arcseconds}\bigg|_{Gemini} = 16 \text{ mas}$