Scientific Translation Date: 9, Feb, 2020

Fourth Stage – Morning Classes Time: 11:30 & 12:15

Lecturer: Farah A. Abo Al-Timen

Space Telescope

Telescopes for astronomical observations have been in use for four centuries by now. A space telescope or space observatory is an instrument located in [outer space](https://en.wikipedia.org/wiki/Outer_space) to observe distant [planets](https://en.wikipedia.org/wiki/Planet), [galaxies](https://en.wikipedia.org/wiki/Galaxy) and other [astronomical objects](https://en.wikipedia.org/wiki/Astronomical_object). To fully design a telescope appropriate to the scientific objectives the following matters should be taken into consideration:

– Stellar observations (point-like sources), imagery or/and spectroscopy,

– Interstellar medium and/or galaxy observations,

– Solar observations, imagery or/and spectroscopy,

– Spectral range or wavelength domain and efficiency,

– Angular resolution and field of view (FOV),

– Spacecraft parameters (size and mass allocation, pointing system performance, choice of spacecraft orbit),

–Acceptable level of scattered light.