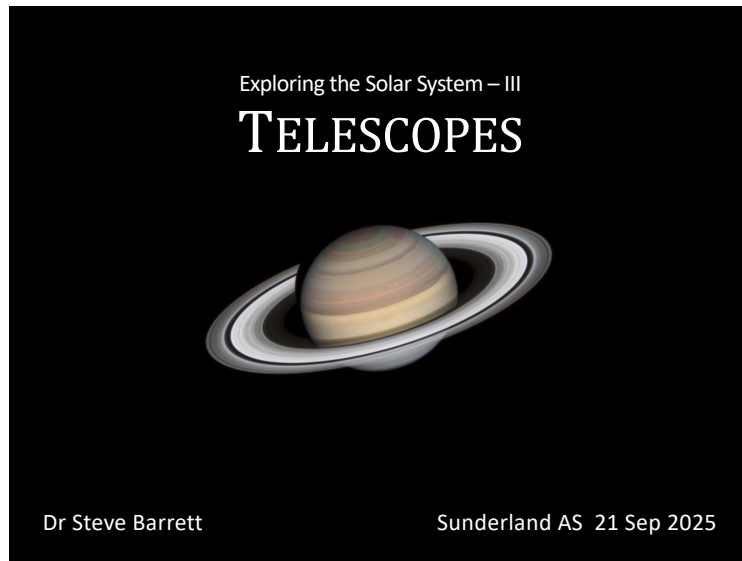


Exploring the Solar System III – Telescopes



Exploring the Solar System III

Telescopes

400 Years of Telescopes

First Views

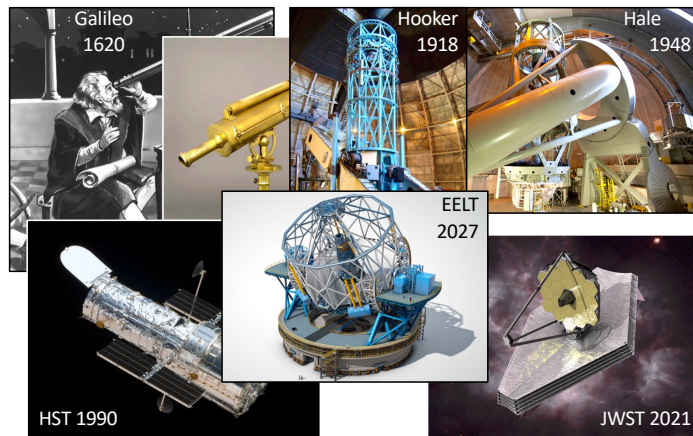
Latest Views

What Next?



2

Keeping an Eye on the Universe



3

Galileo and Jupiter's Moons



" ... our own eyes show us four stars which wander around Jupiter as does the Moon around the Earth "



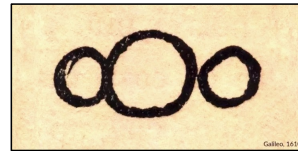
4

Exploring the Solar System III – Telescopes

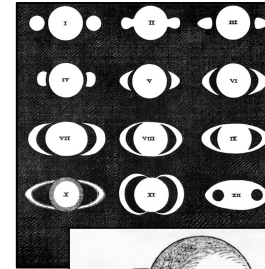
Galileo and Saturn



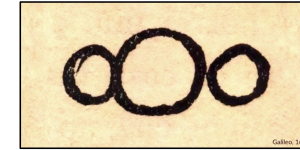
" The first sight that I had of Saturn was of three round stars ... that in the middle considerably larger than the two lateral ones "



The Shape of Saturn



Huygens 1659



Galileo 1610

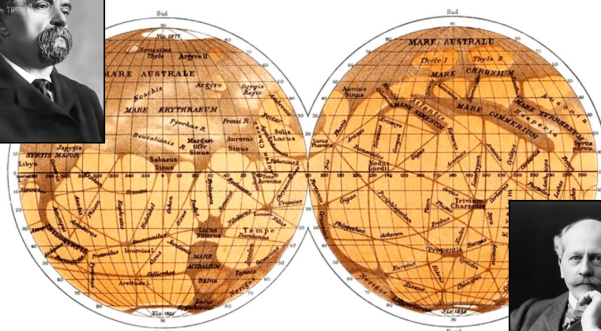


Hubble 2003

Canals on Mars



Schiaparelli 1880s



Lowell 1890s



Canals on Mars

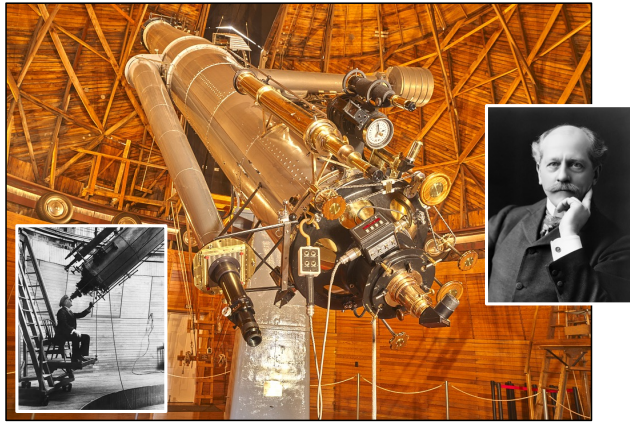


" ... there can be no doubt that living beings inhabit our neighbor world "

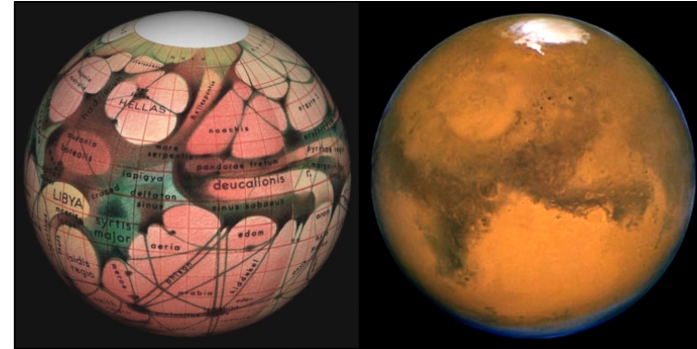
Lowell 1906

Exploring the Solar System III – Telescopes

Lowell Observatory



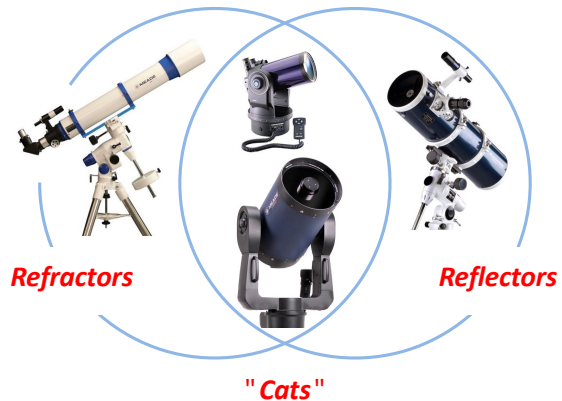
Canals on Mars



Antoniadi 1894

Hubble 2003

Amateur Telescopes

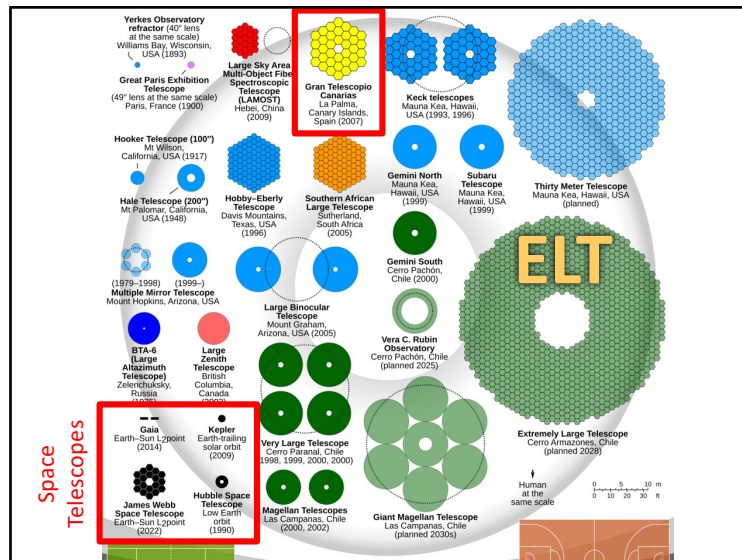


Amateur Telescopes

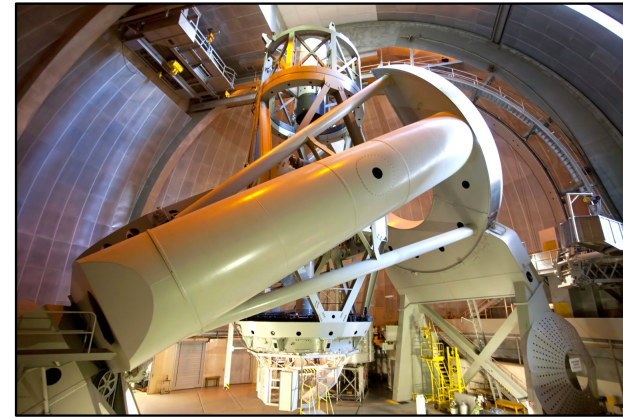
Some amateur
telescopes are
very big and
very expensive.



Exploring the Solar System III – Telescopes

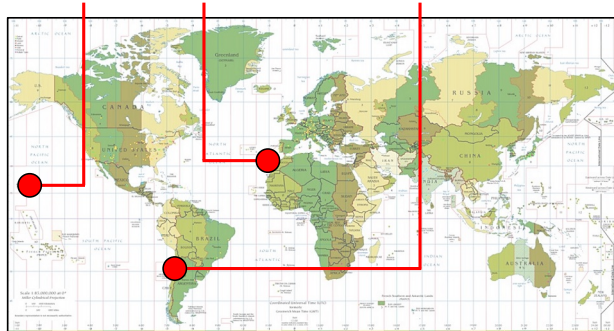


Hale Telescope

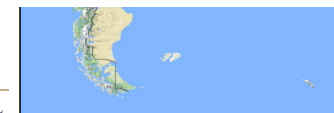


Where Are the Big Telescopes?

The best observatory sites in the world are volcanic islands (Hawaii, La Palma, Tenerife) and the Atacama desert (Chile).

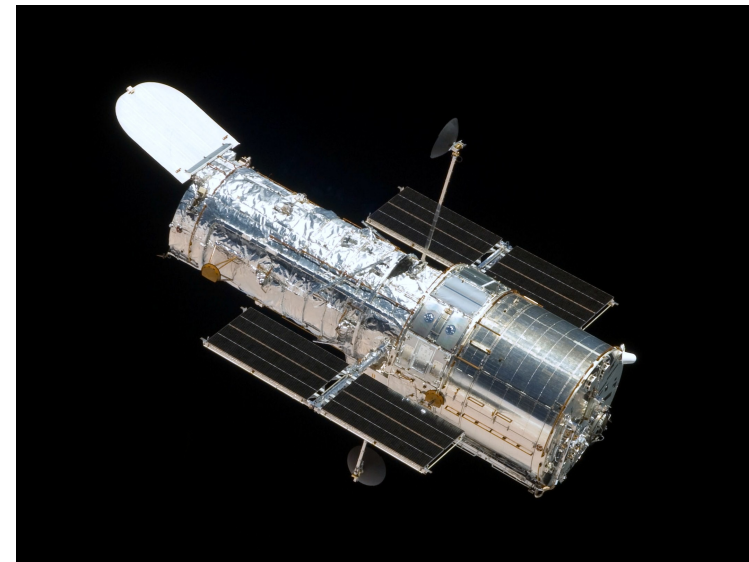


Cerro Pachón

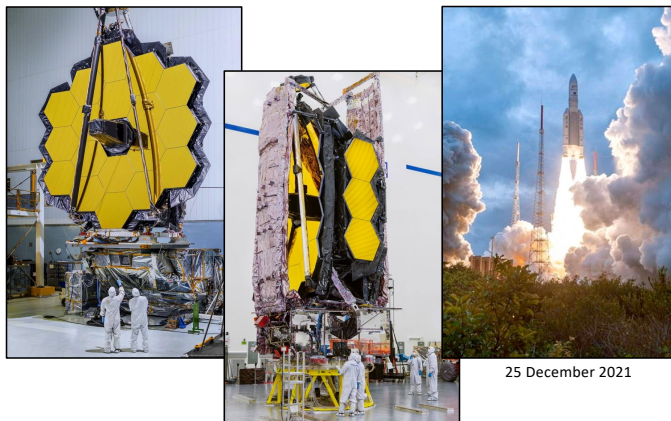


Exploring the Solar System III – Telescopes

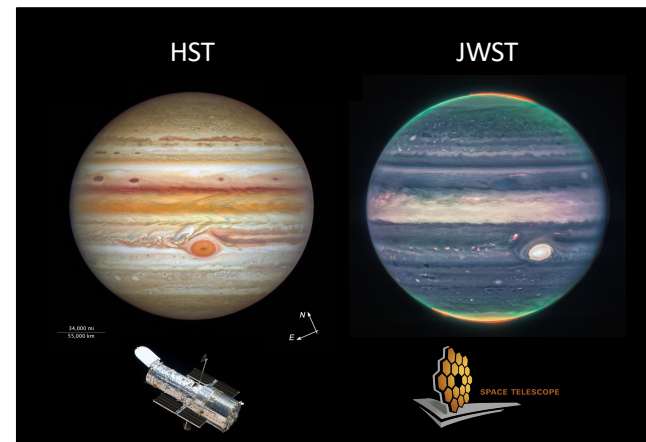
Higher Than a Mountain Top



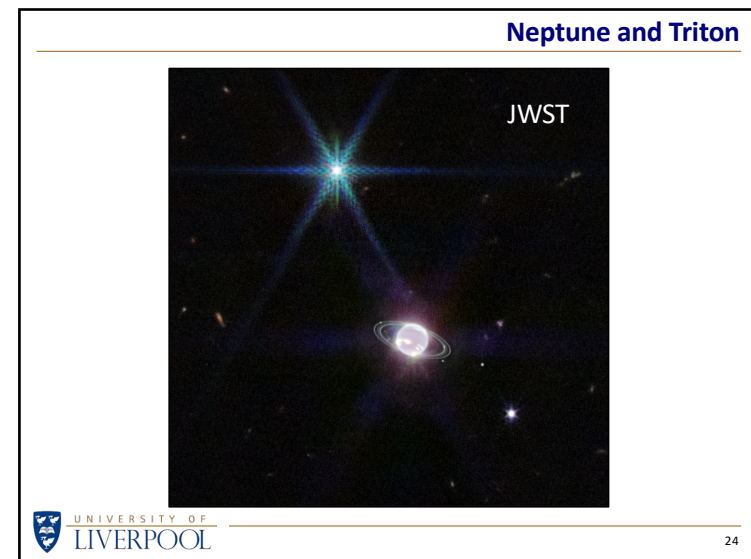
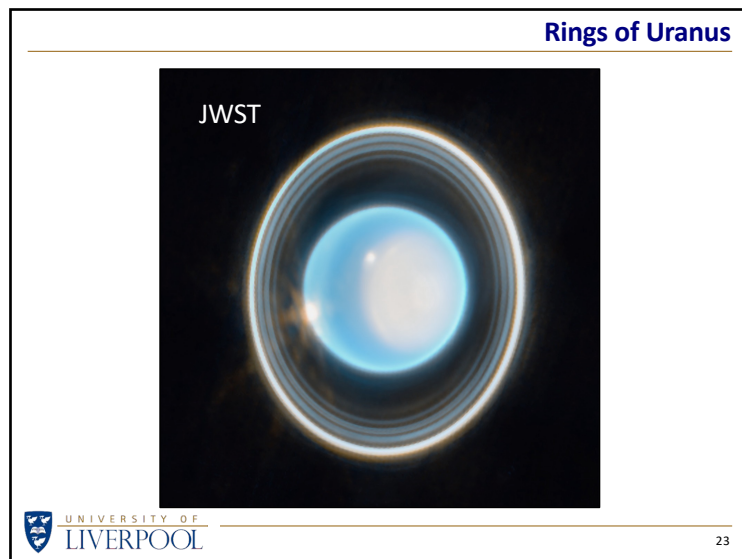
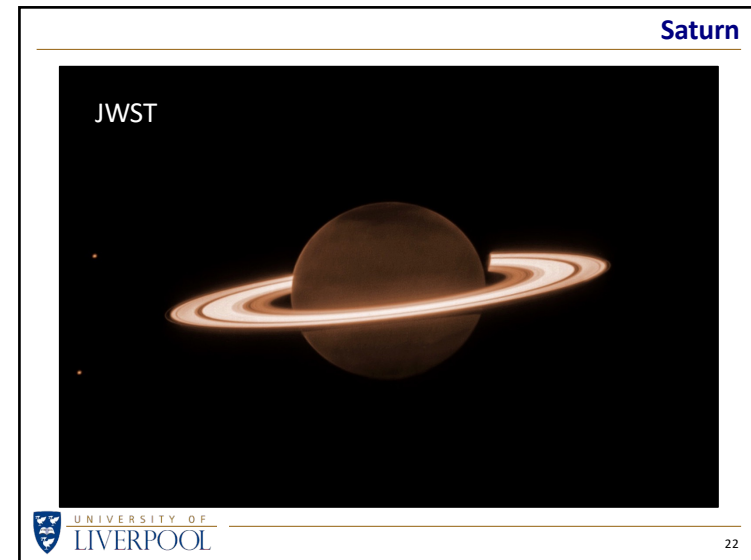
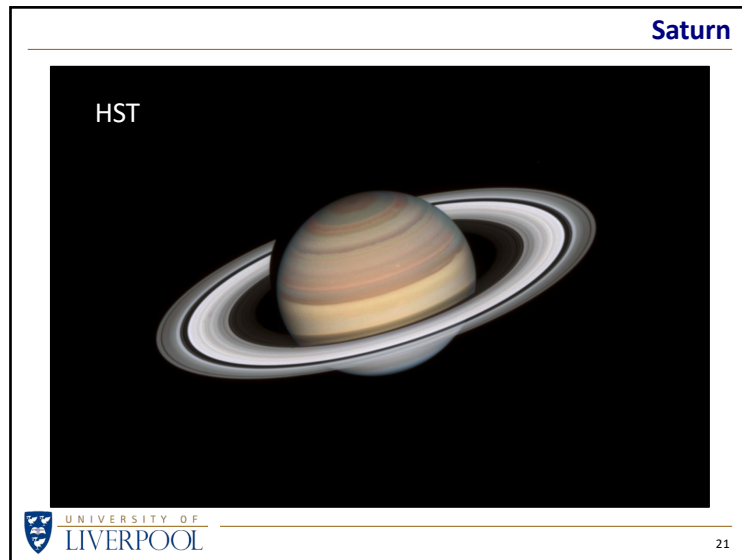
James Webb Space Telescope



Jupiter



Exploring the Solar System III – Telescopes

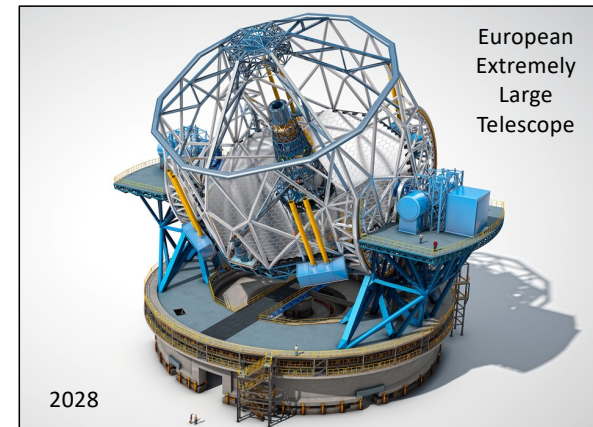


Exploring the Solar System III – Telescopes

Under Construction – LSST



Under Construction – EELT



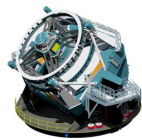
Want To Know More?



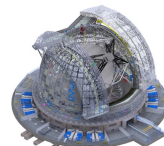
HubbleSite.org



WebbTelescope.org



LSST.org



ELT.ESO.org

Exploring the Solar System – III

TELESCOPES



www.liverpool.ac.uk/~sdb/Talks

Dr Steve Barrett

Sunderland AS 21 Sep 2025