


Exploring the Solar System III – Telescopes

Exploring the Solar System – III

TELESCOPES



Dr Steve Barrett

SCASTRO 23 Apr 2026

Exploring the Solar System III


Telescopes

400 Years of Telescopes

First Views

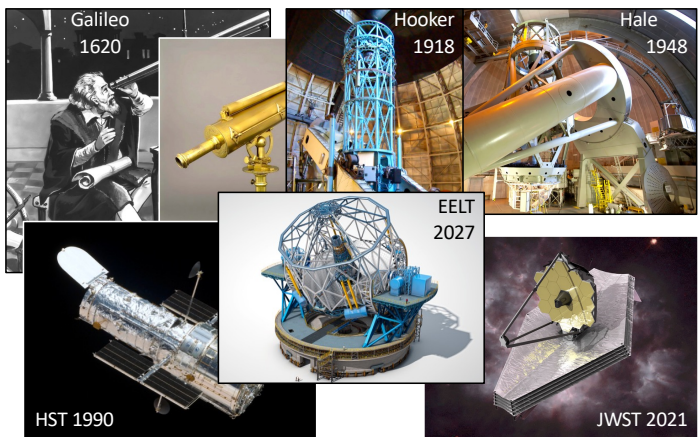
Latest Views

What Next?



2

Keeping an Eye on the Universe



Galileo 1620


Hooker 1918

Hale 1948

EELT 2027


HST 1990

JWST 2021





3

Galileo and Jupiter's Moons




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

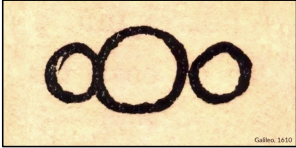
4

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 "

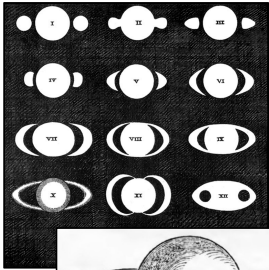


Galileo, 1610

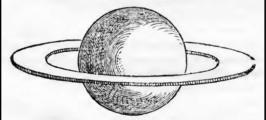


5


The Shape of Saturn




Galileo 1610



Huygens 1659




Hubble 2003

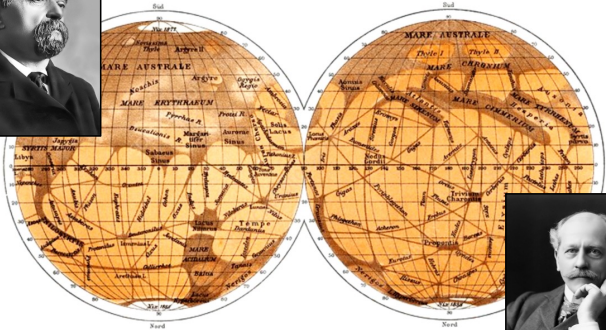


6



Canals on Mars



Schiaparelli 1880s



Lowell 1890s

7

Canals on Mars



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

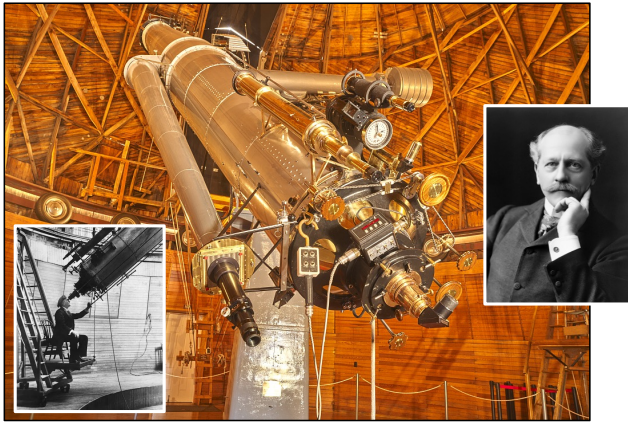
Lowell 1906



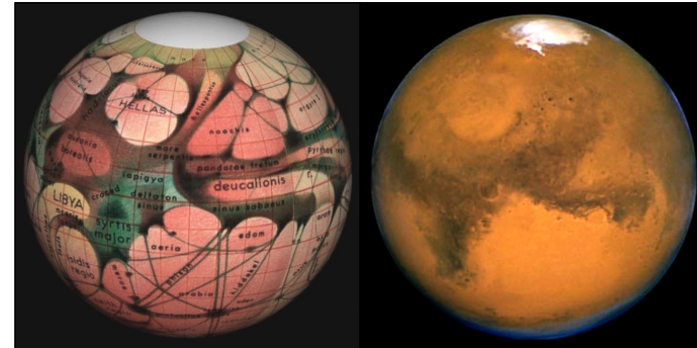
8

Exploring the Solar System III – Telescopes

Lowell Observatory



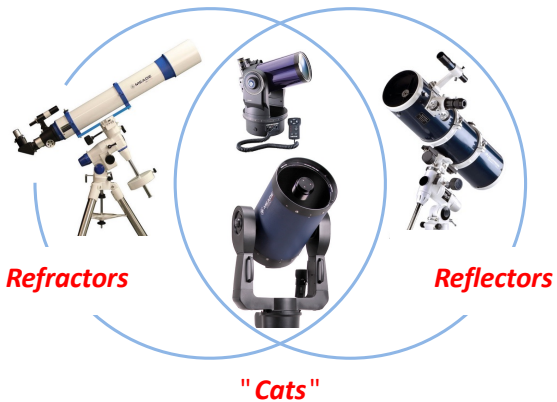
Canals on Mars



Antoniadi 1894

Hubble 2003

Amateur Telescopes

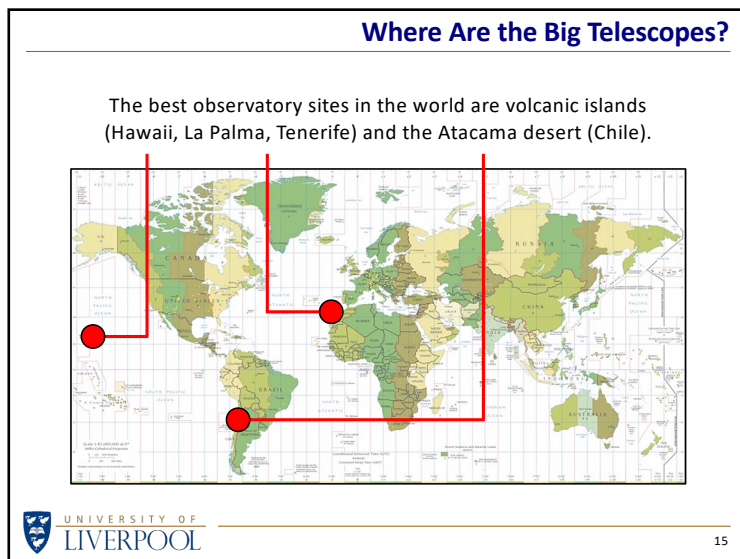
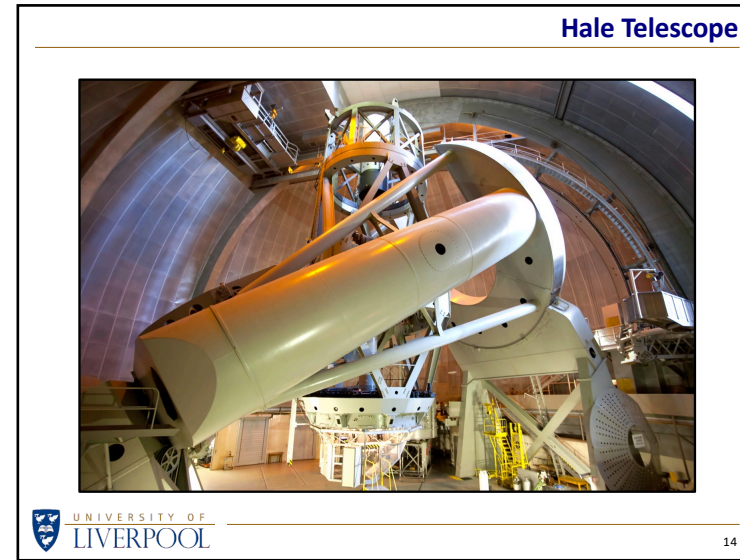
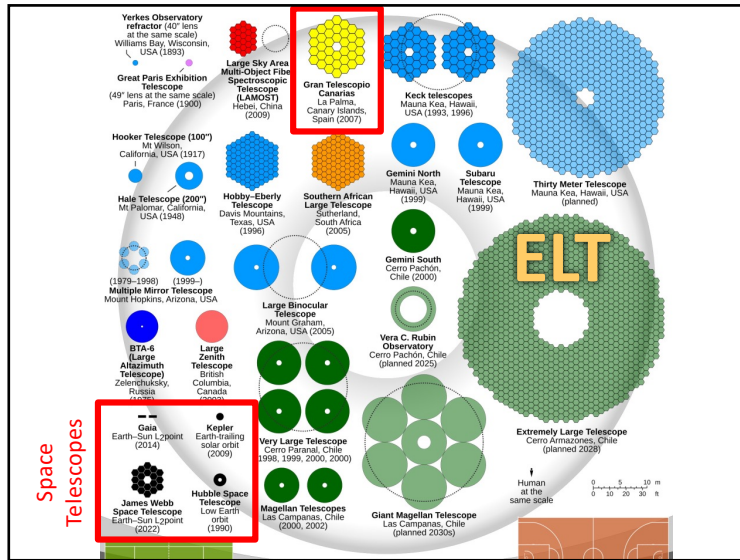


Amateur Telescopes

Some amateur telescopes are very big and very expensive.

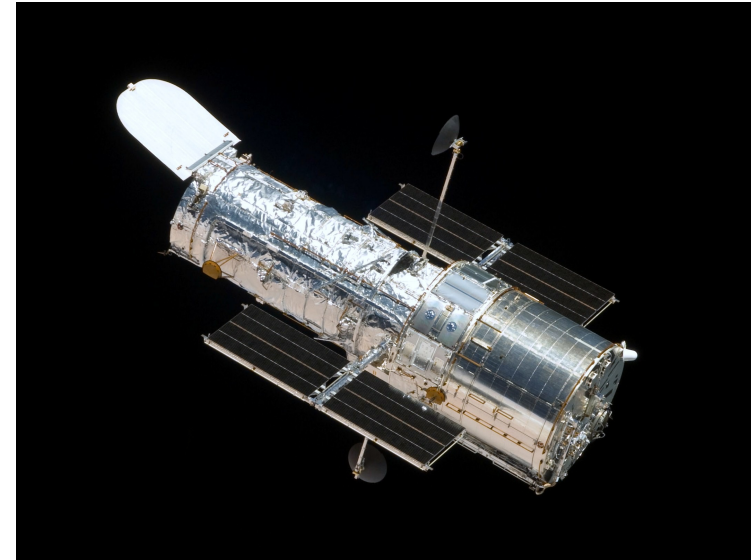


Exploring the Solar System III – Telescopes

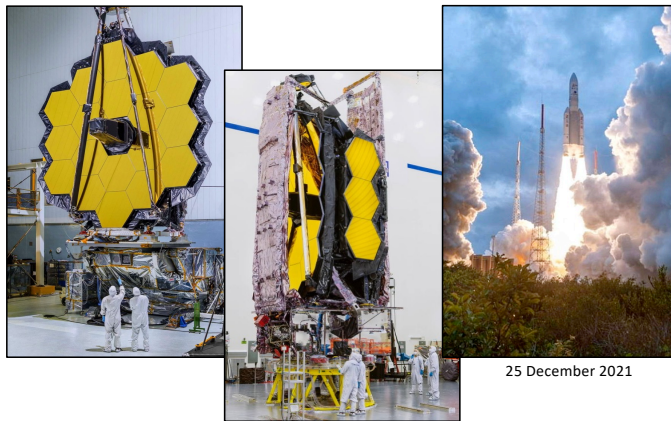


Exploring the Solar System III – Telescopes

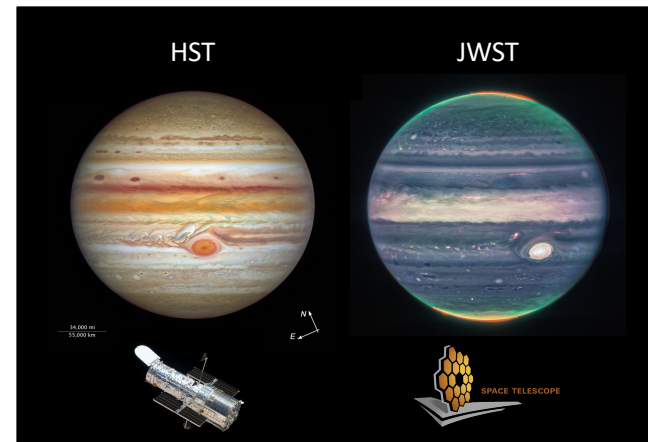
Higher Than a Mountain Top



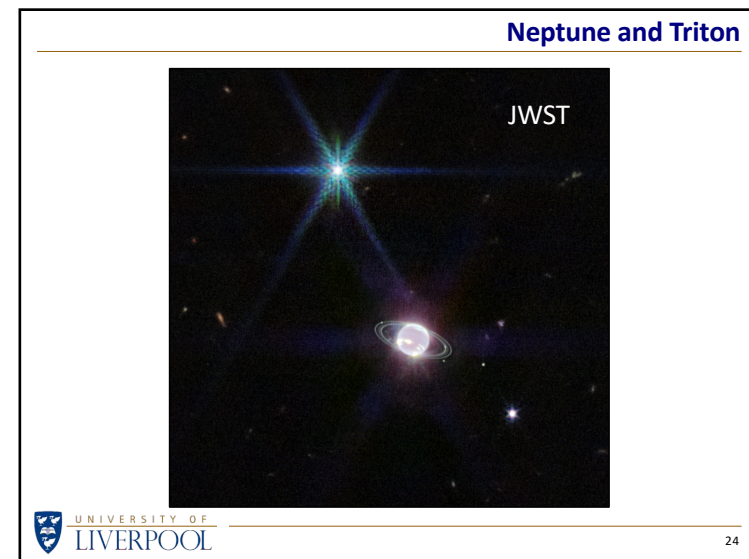
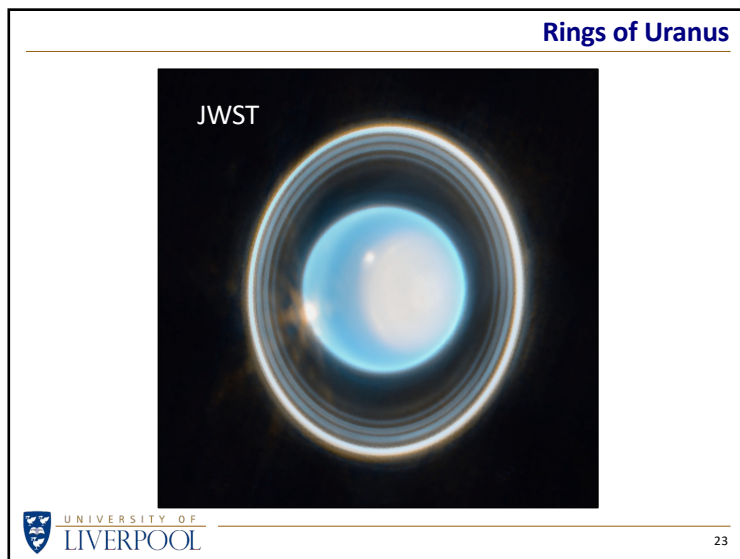
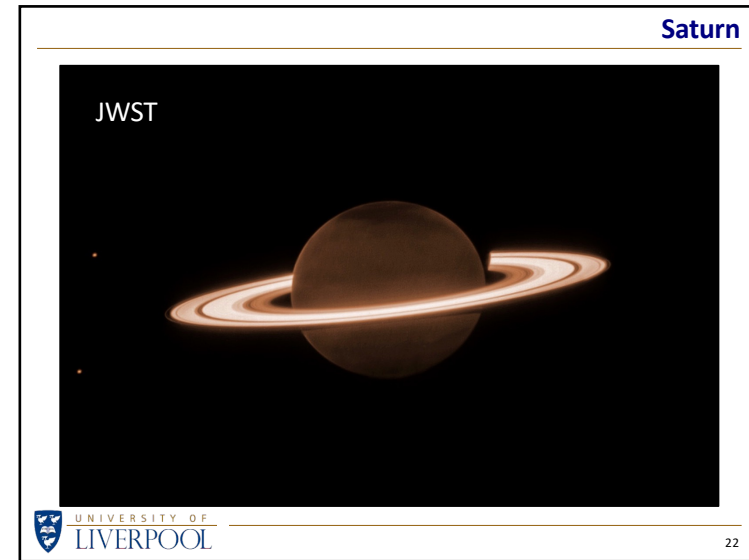
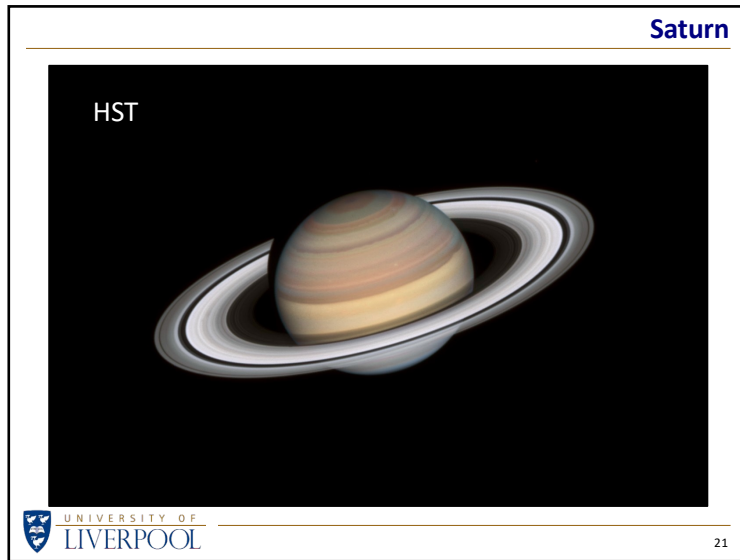
James Webb Space Telescope



Jupiter



Exploring the Solar System III – Telescopes



Exploring the Solar System III – Telescopes

Under Construction – LSST



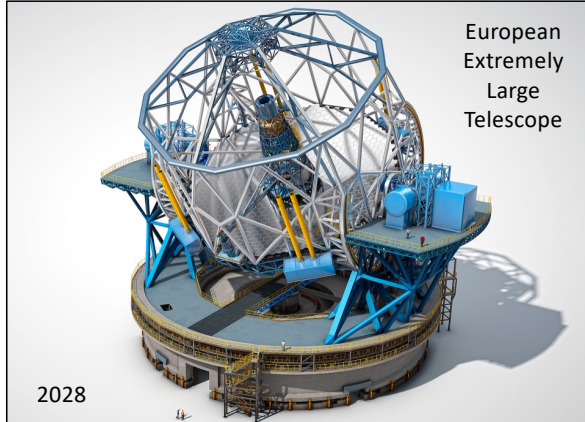
Legacy Survey of Space and Time

2025–2035

University of Liverpool

25

Under Construction – EELT



European Extremely Large Telescope

2028

University of Liverpool

26

Want To Know More?



HubbleSite.org

WebbTelescope.org

LSST.org


ELT.ESO.org

University of Liverpool

27

Exploring the Solar System – III

TELESCOPES



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

Dr Steve Barrett

SCASTRO 23 Apr 2026