

UK / US
collaborations

Astronomy

Technology

Centre



Royal Observatory, Edinburgh, UK

UK Astronomy Technology Center

- In Edinburgh, a world-leading centre in the development of cutting-edge **astronomical instrumentation** for space- and ground-based observatories
- Shaping the future of astrophysics & enabling **transformative science** through strategic **UK and international partnerships**

Staffing: 130 FTE
30+ on-going projects

Current projects

Space

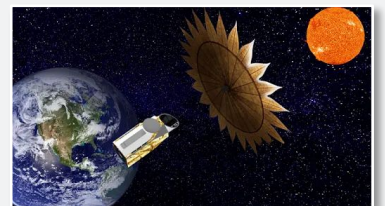
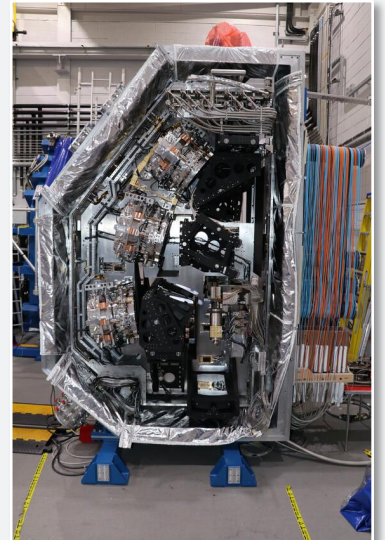
- JWST, LISA, NIR-GAIA

Ground

- ESO/ELT (Harmoni, Metis, Andes, Mosaic)
- ESO/VLT (Moons, Cubes)
- ALMA, SKA

Future prospects

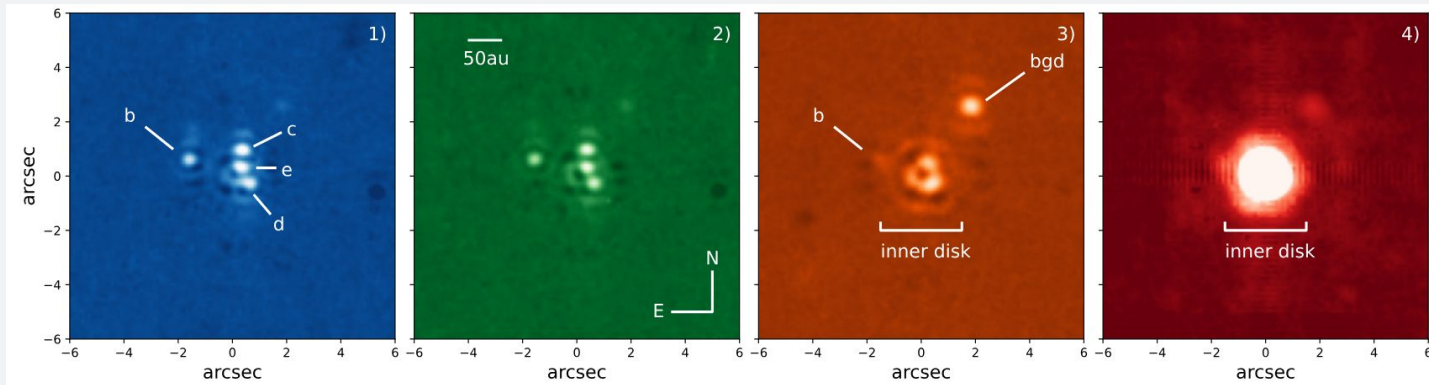
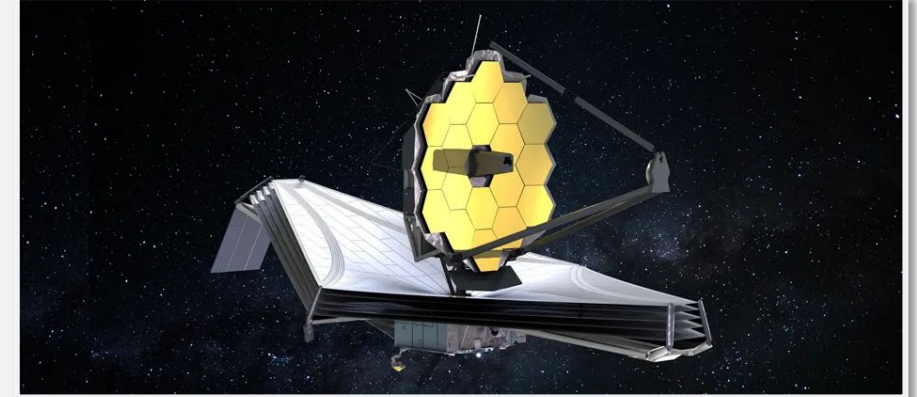
Habitable Worlds Observatory
AtLAST, WST
Solar system missions



Engineering & AIT --- Project Management --- Project Science --- R&D --- Public Engagement

James Webb Space Telescope / MIRI

- UK Astronomy Technology Centre led:
 - **MIRI European consortium**
 - European PI: G. Wright
 - Instrument optical design and performance verification
 - Instrument simulator & data pipeline
 - Design & dev. of spectrometer pre-optics



Debris disk and exoplanets of HR 8799 system. Boccaletti et al. (2024)



Future Prospects

- **Habitable Worlds Observatory:**
 - Leads UK **optical design** for **coronagraph** near-infrared integral field **spectrograph**
 - Supports early design studies for **HRI and MOS instruments** (Barstow, Van Eylen)
 - System engineering, detectors, project management, optical/mechanical design
- **Ocean Worlds / Astrobiology**
 - Hyperspectral imager for CALICO+ ESA M8 mission concept to **Ceres** (PI: A. Hagermann - ATC, Oxford, Edinburgh)
 - Orbiter + Lander (Occator crater)
 - Pathfinder for future missions to **Enceladus**

