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## Summary

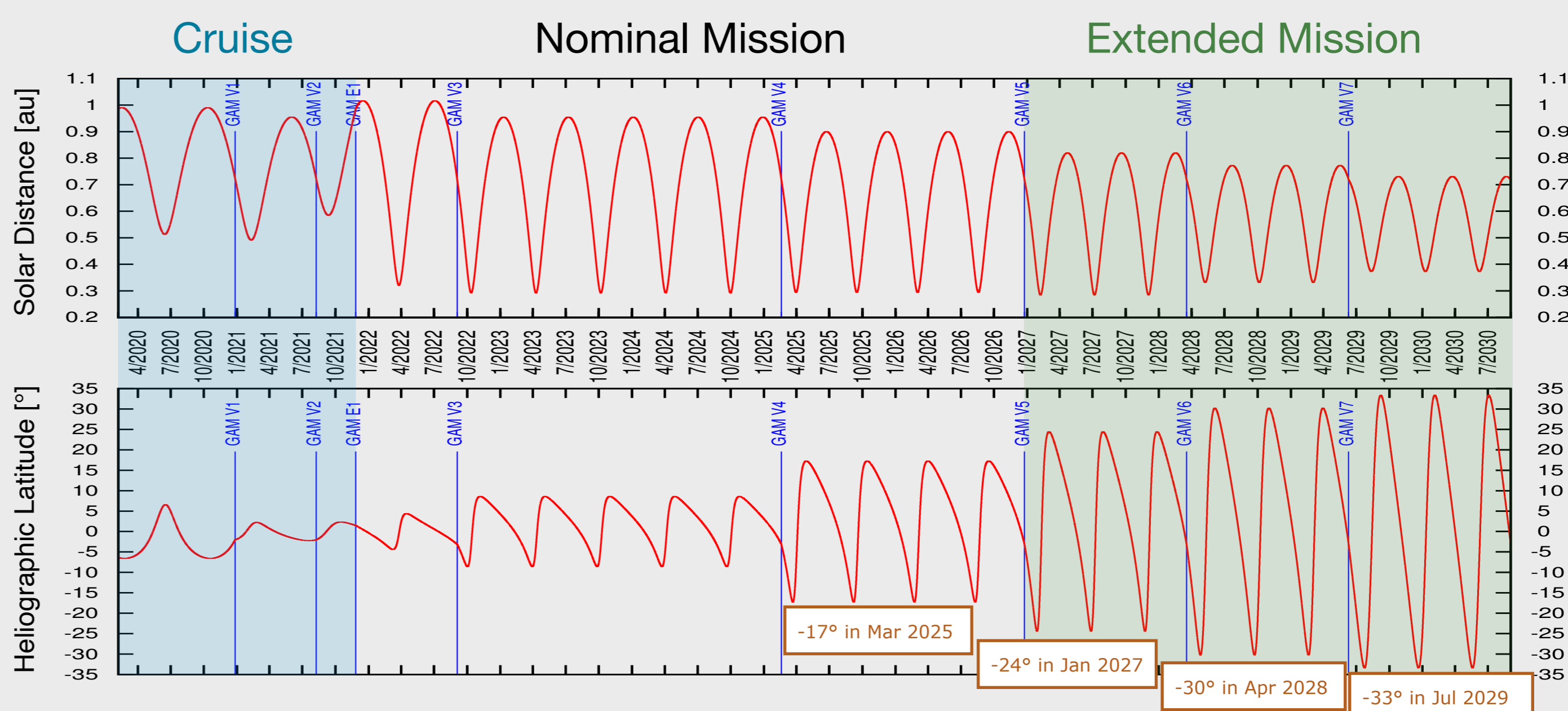
- Solar Orbiter is performing well and approaching close perihelion #5
- Out-of-ecliptic observations will start in 2025
- Nominal mission runs until end of 2026
- Many opportunities for scientific engagement:
  - Propose and coordinate multi-instrument science campaigns
  - Participate in weekly Science WG meetings

## Orbit Characteristics

**Dec 2021: Start of Nominal Mission Phase**

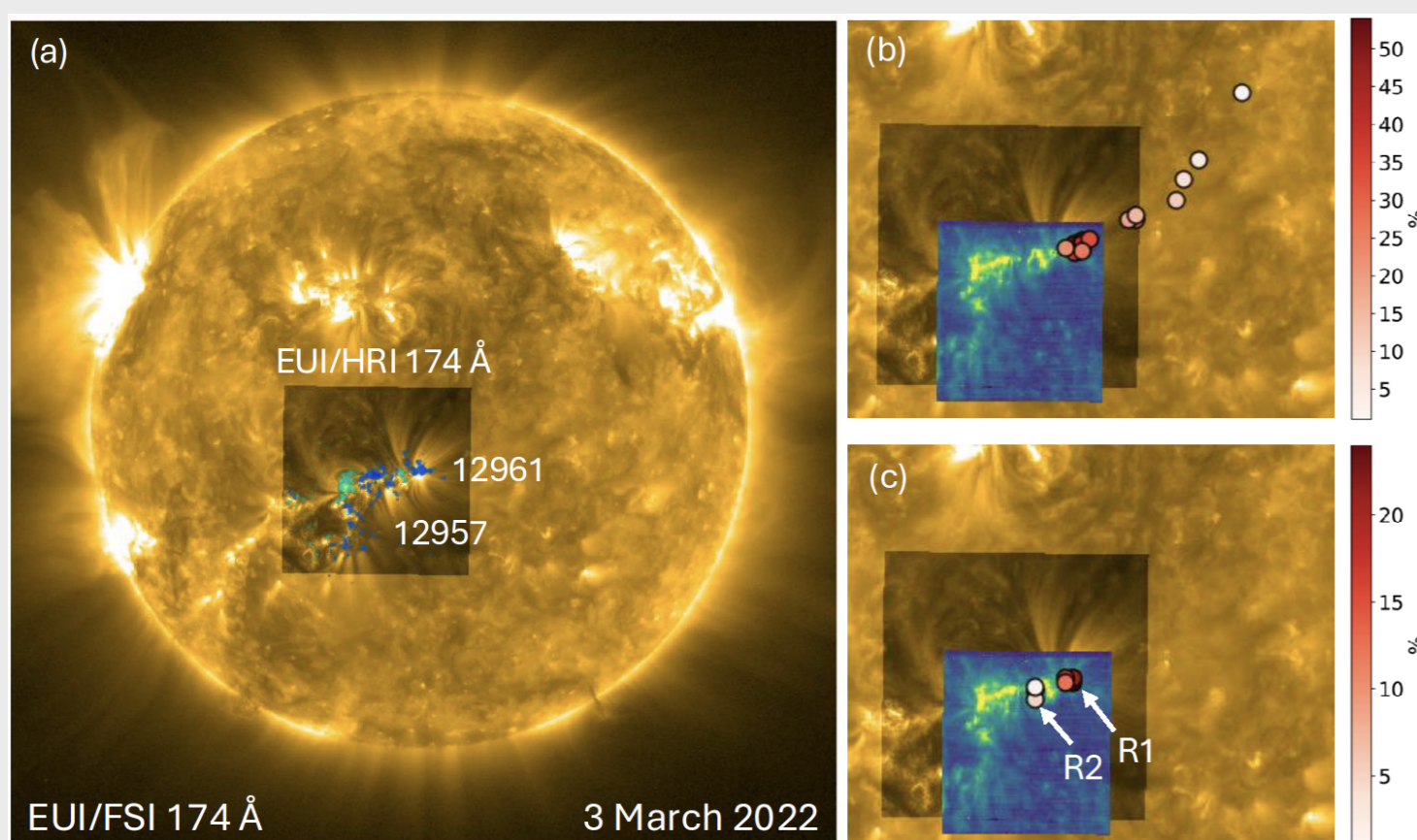
**2025: First out-of-ecliptic observations**

- After Venus fly-by in Feb 2025, extrema in heliographic latitude will increase to 17°
- The 'south pole' passes will be close to the perihelia (0.35 au)
- Sun-Earth line encounters will be at -14° and +16° heliographic latitude

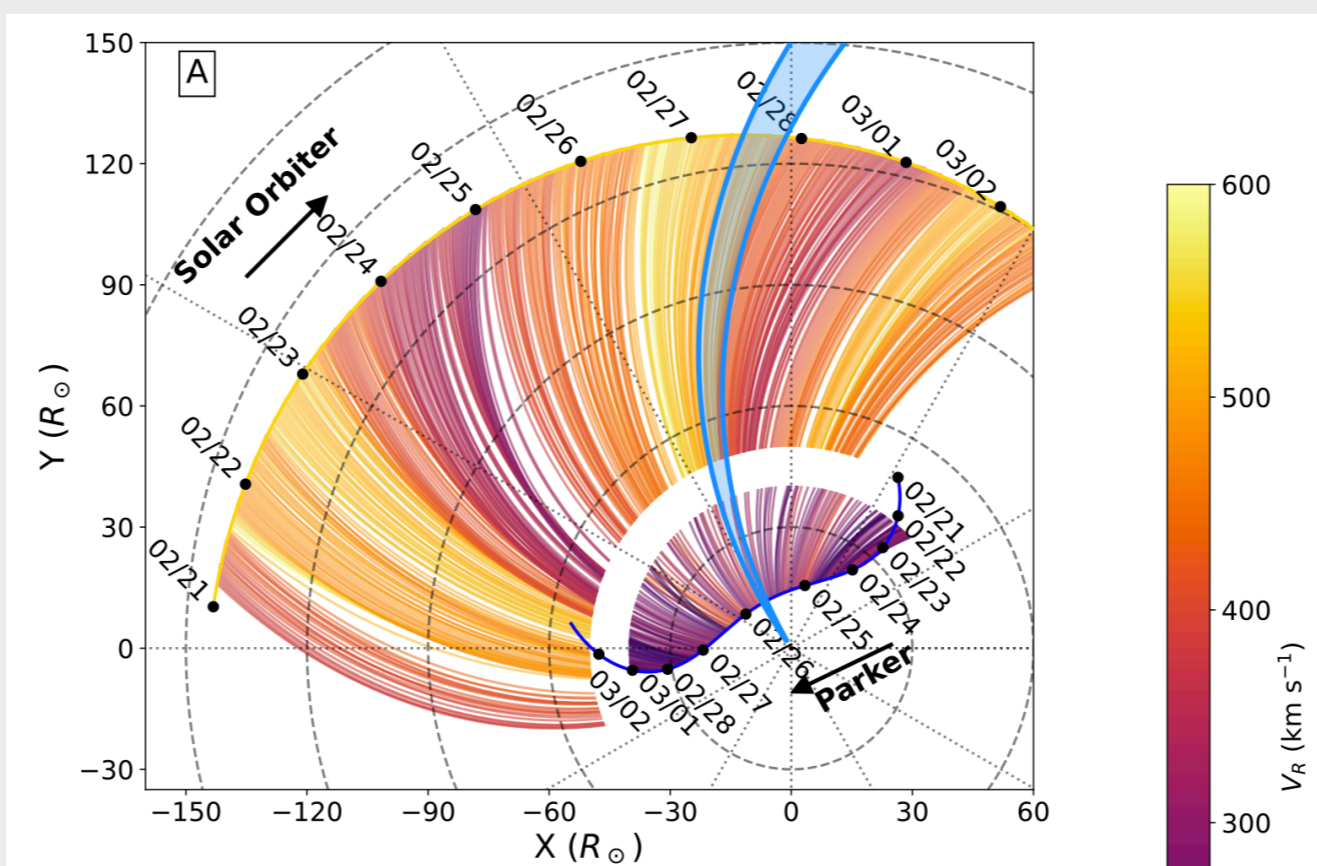


## Recent Science Highlights

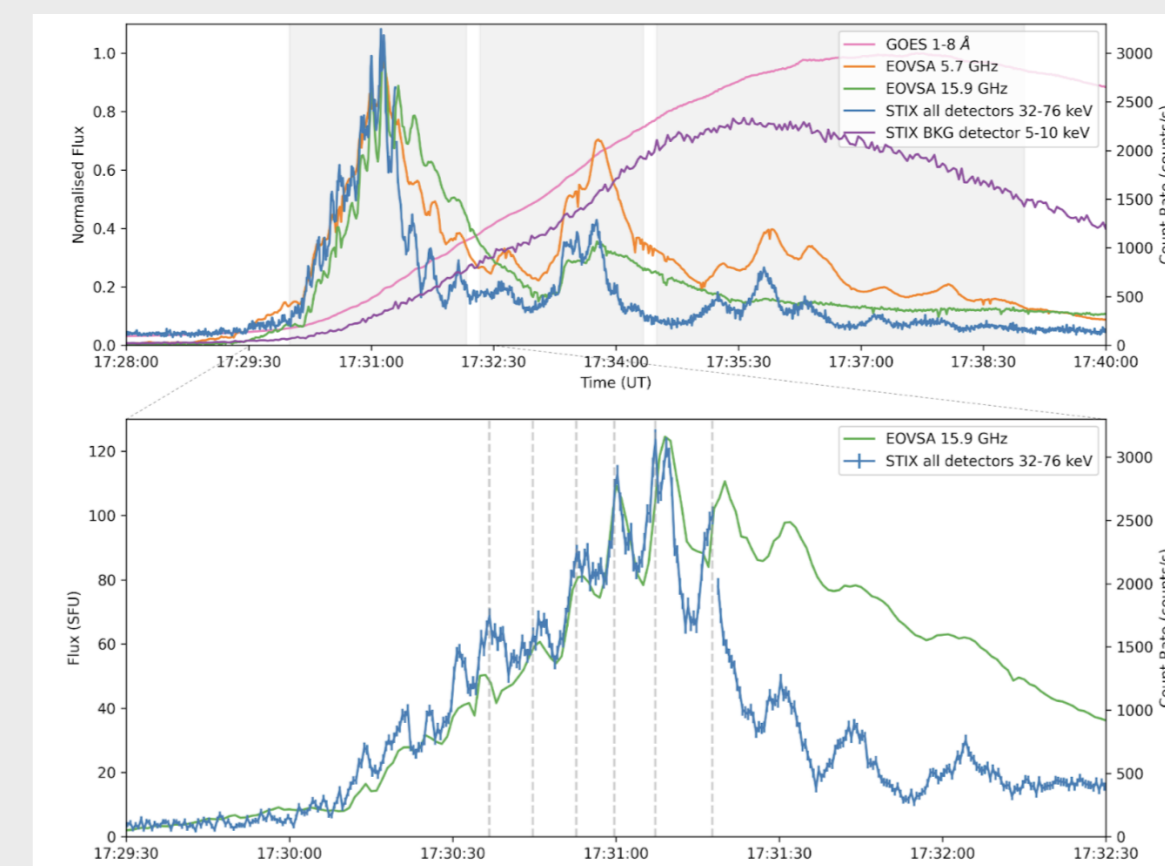
Multi-source connectivity drives solar wind variability (Yardley et al., Nature Astronomy 2024)



In situ observations of large amplitude Alfvén waves heating and accelerating the solar wind (Rivera et al., Science 2024)

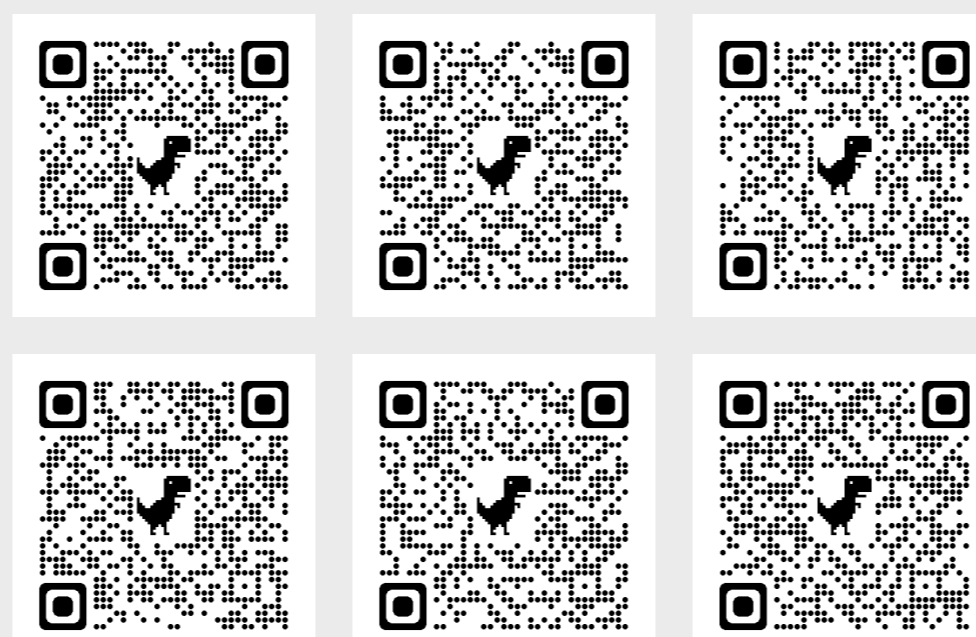


Localising pulsations in the hard X-ray and microwave emission of an X-class flare (Collier et al., A&A 2024)



## Data Download

- ESA Solar Orbiter Archive (SOAR):  
Web interface + Table-Access Protocol (TAP)
- NASA Solar Orbiter Archive at GSFC (HTTPS)
- SunPy
- NASA VSO (currently EUI, SPICE, SoloHI)
- NASA SPDF CDAWeb (in-situ data)
- For some instruments also directly from PI teams



## Getting involved

- Visit our mission web pages
- Monthly webinars starting on 2 October
- Questions? Ideas?  
Talk to Daniel Müller at ESPM-17 or email to [Daniel.Mueller@esa.int](mailto:Daniel.Mueller@esa.int)

