

Spectroscopy of a cold, planetary mass companion of a white dwarf

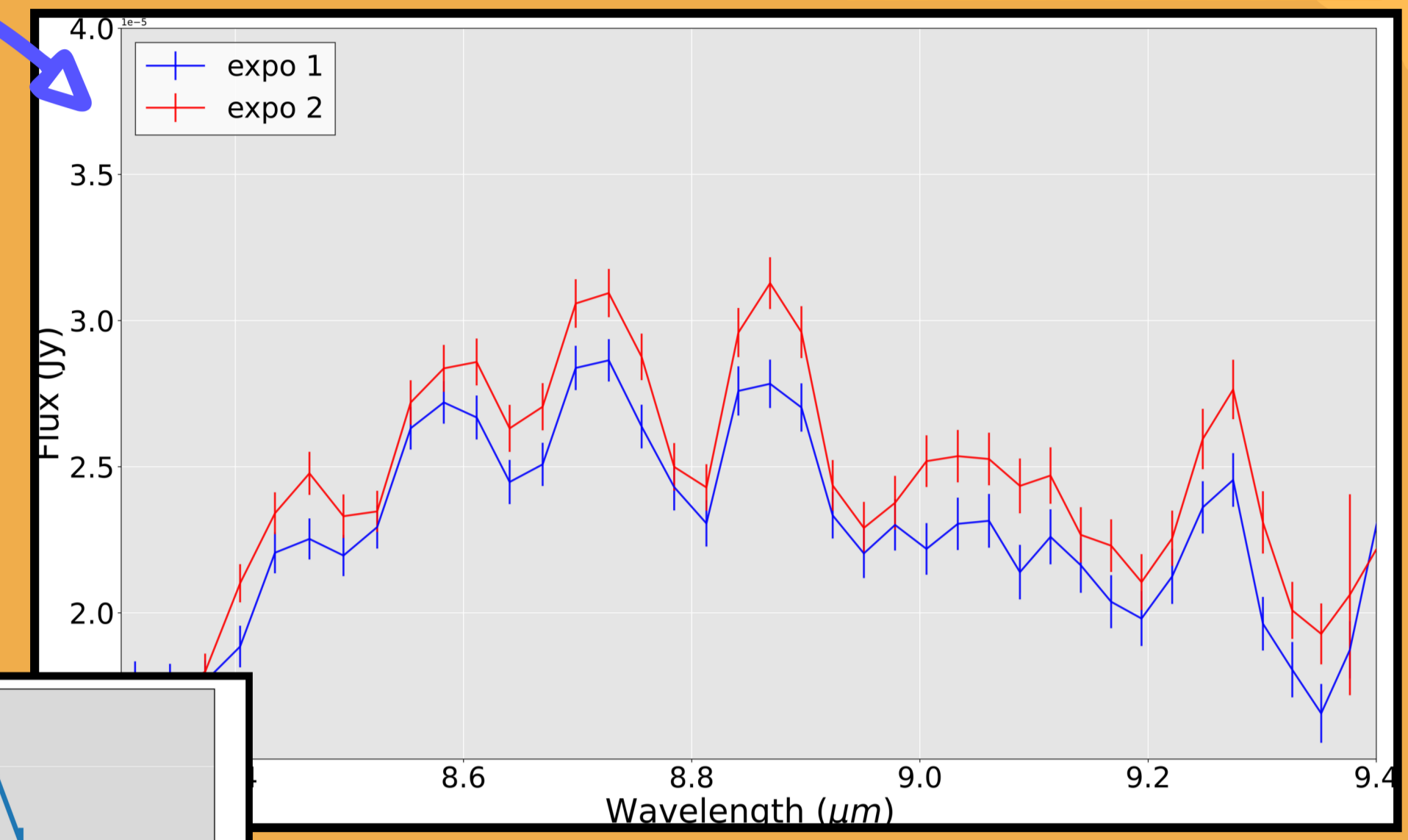
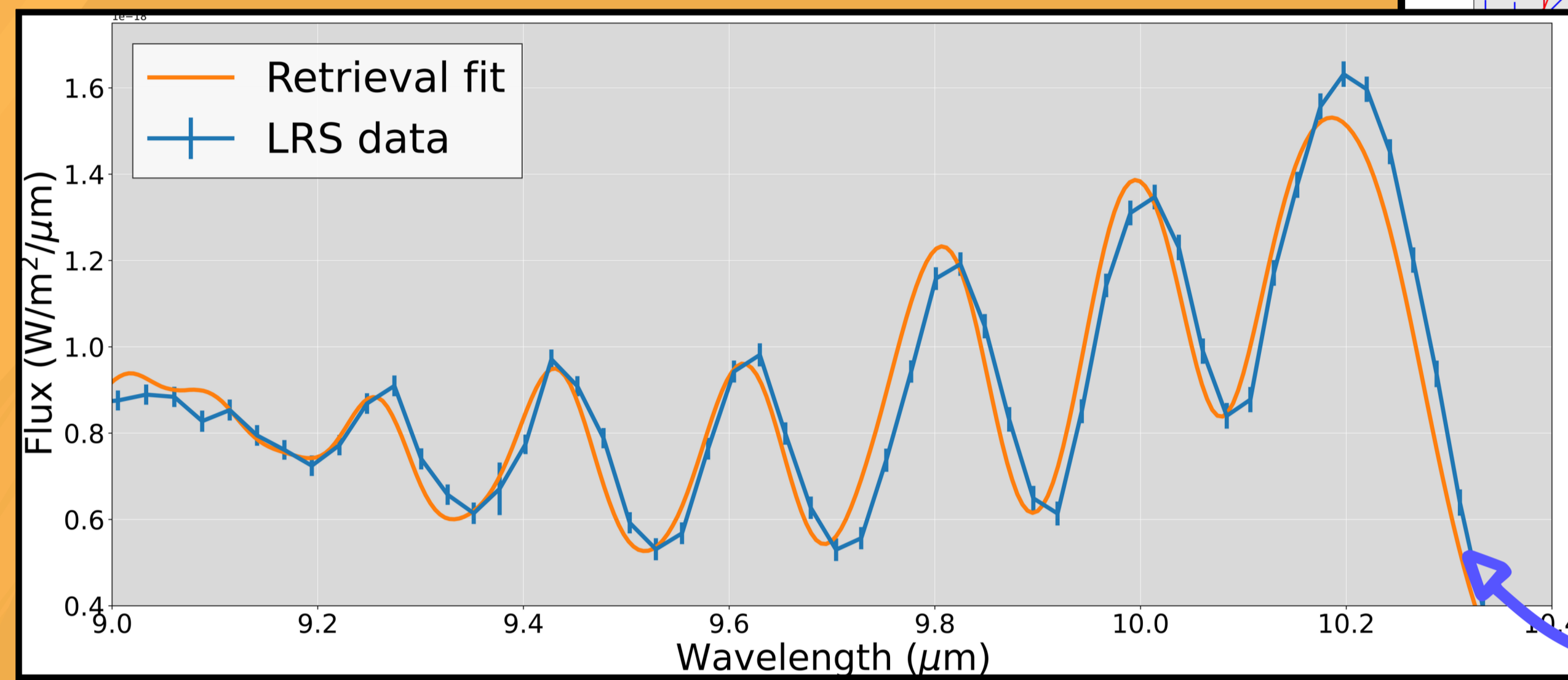


Target: **WD 0806-661b**

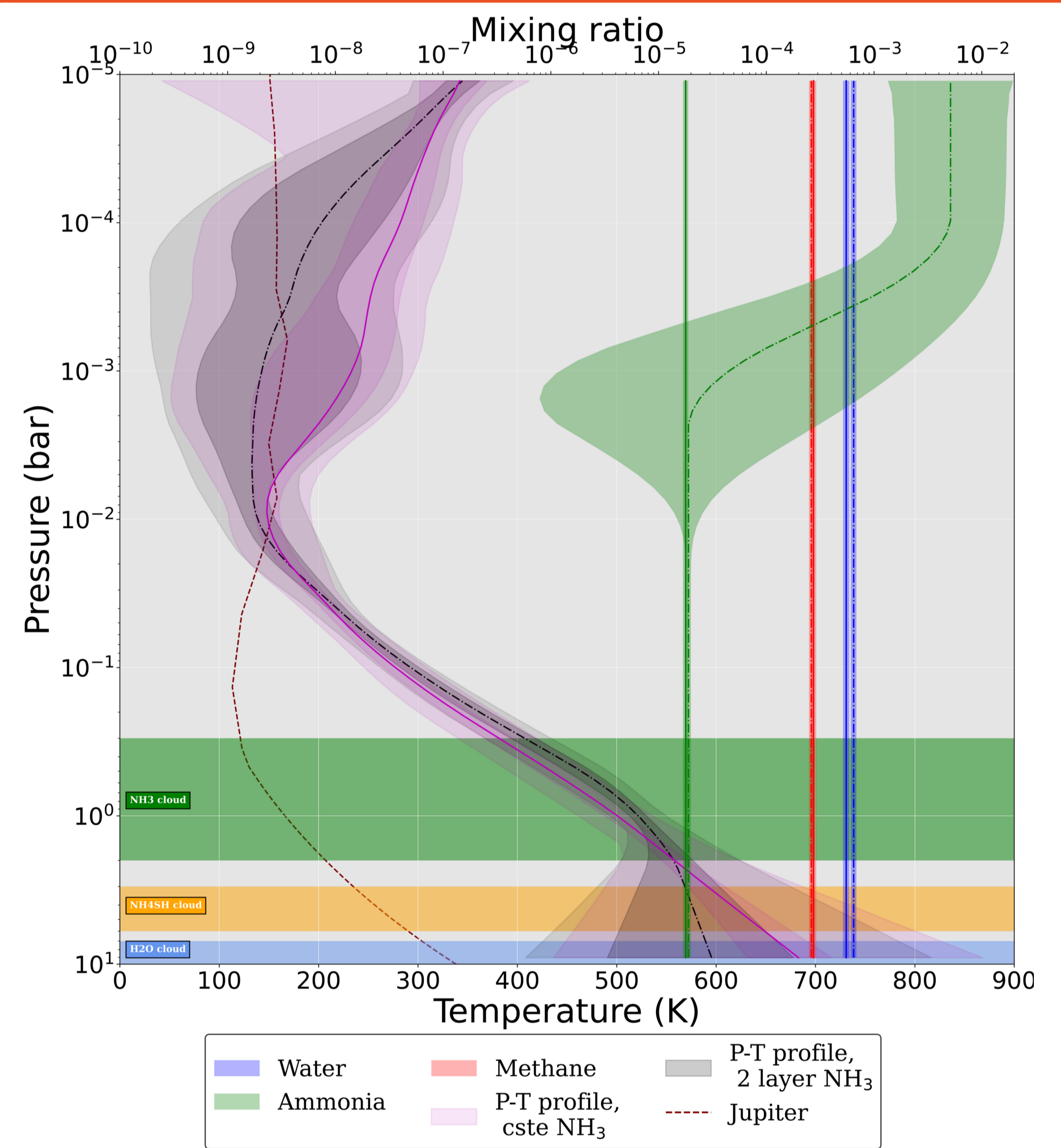
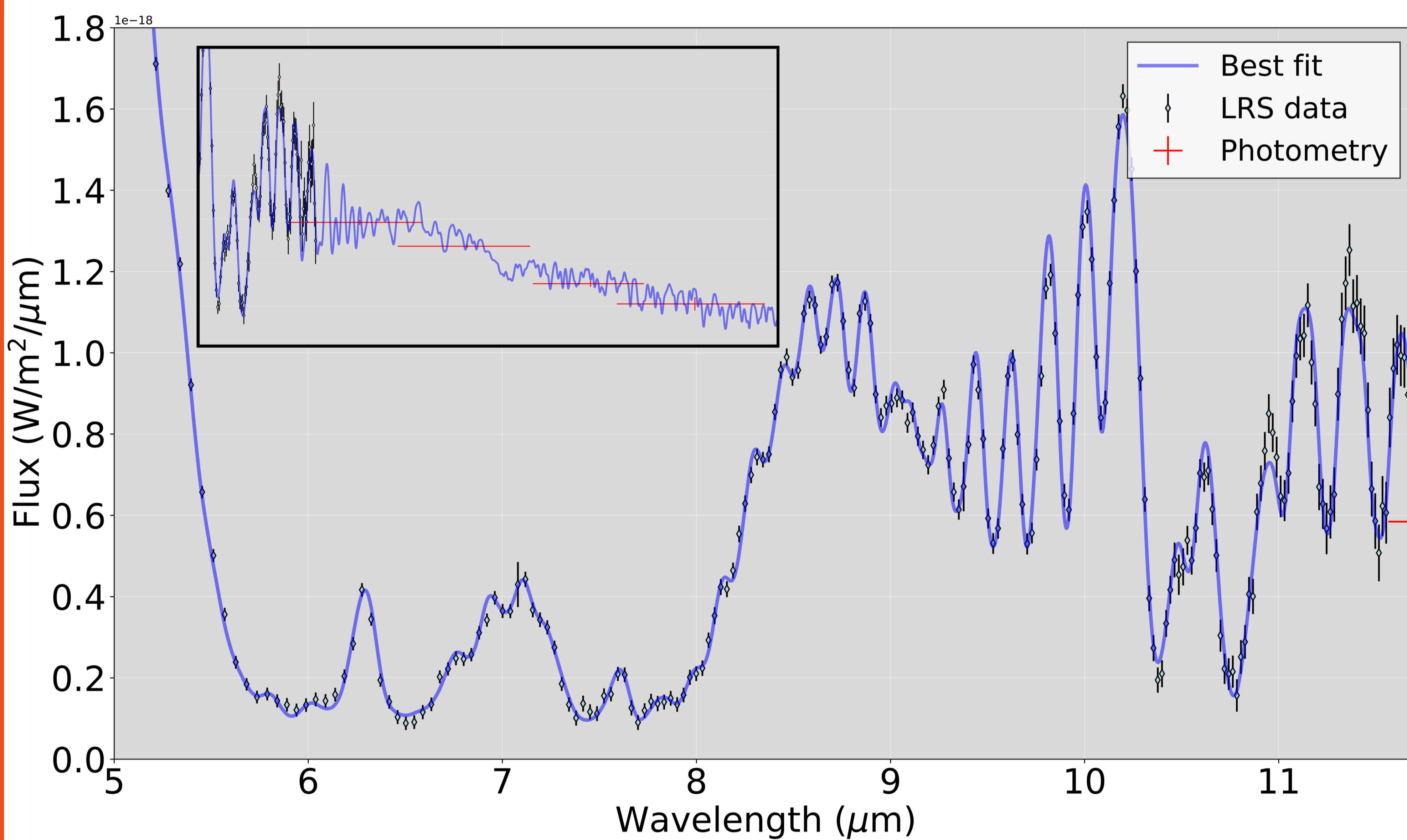
- Mag J ~ 25
- Mass from evolutionary models ~ 6 - 9 M_J
- 2500 AU from WD
- ~ 350 K T_{eff} (Luhman+ 2014)
- This work: 4h of MIRI LRS

Data reduction

Improved & rescaled background correction



Wavelength offset correction in the retrievals

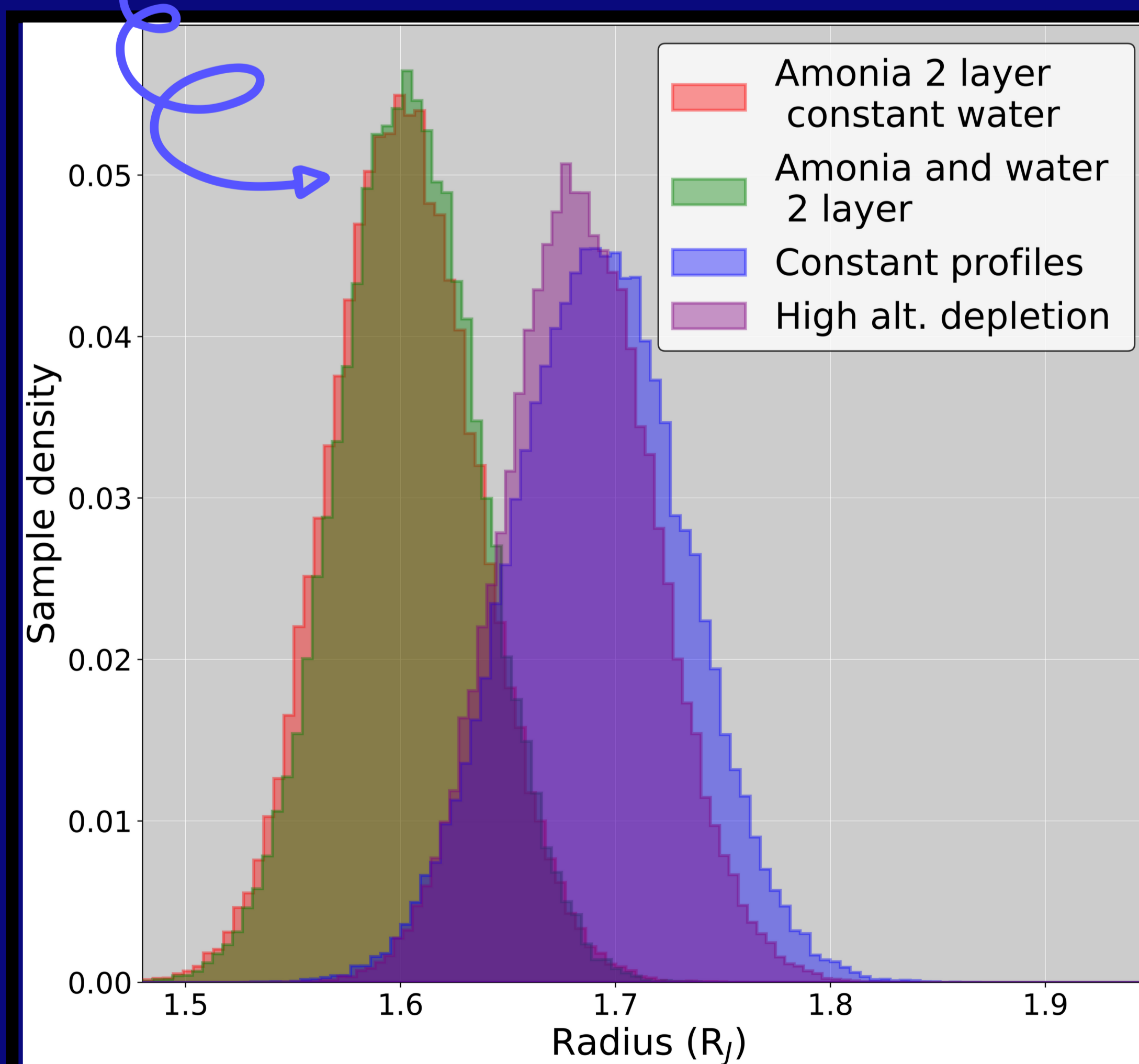


Voyer et al. in prep.

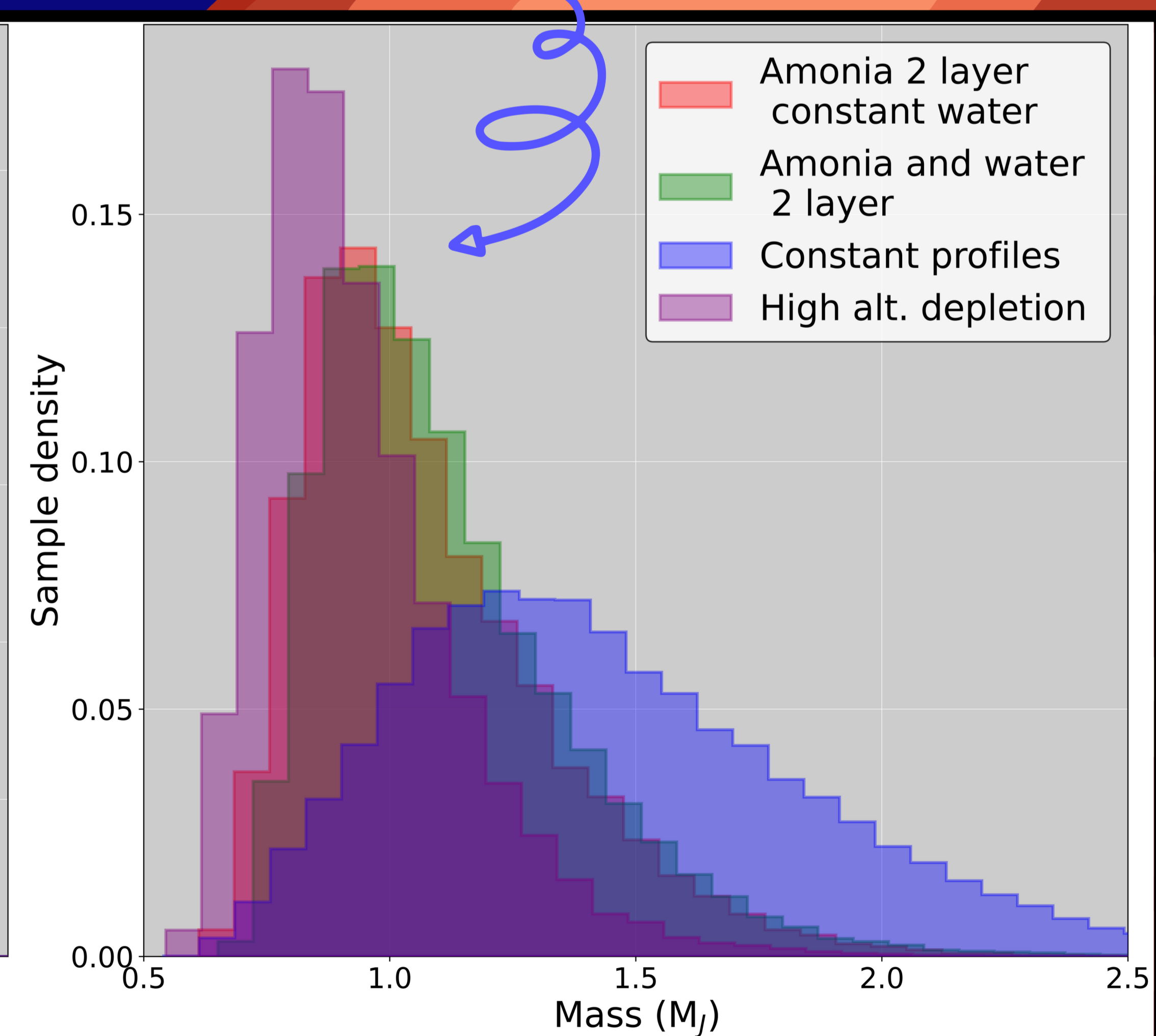
Atmospheric retrieval with TauRex

- Pressure temperature profile
- Water, Ammonia and Methane profiles
- Radius
- Mass
- **Derived parameters:**
 - C/O ~ 0.4
 - C/N ~ 14
 - N/O ~ 0.3

Higher than expected radius



Lower mass than predicted by evolutionary models?



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