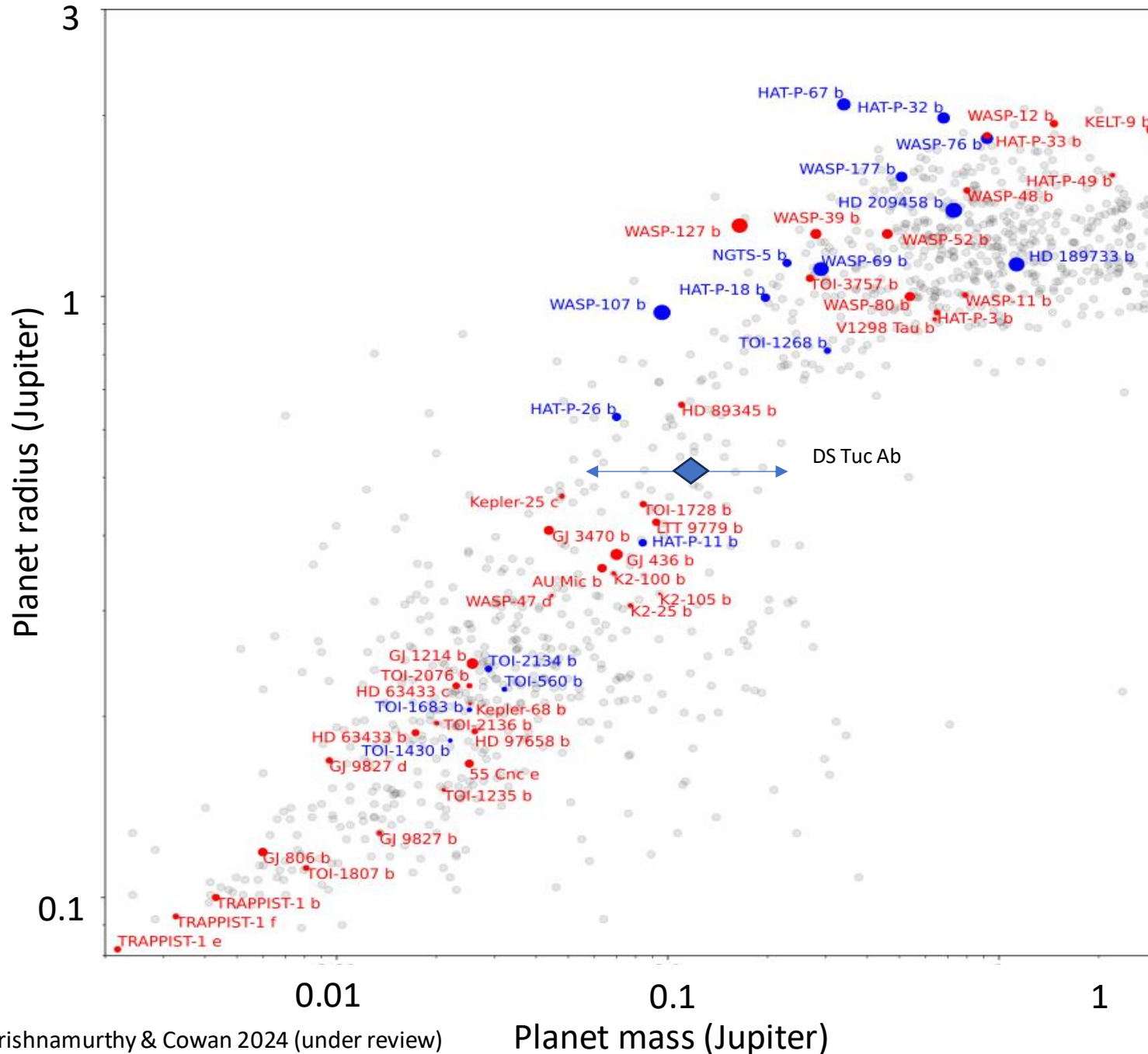


# Atmosphere of a young exoplanet - DS Tuc Ab

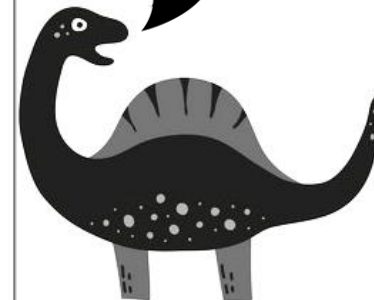
Vigneshwaran Krishnamurthy, Romain Allart, Nicolas Cowan, René Doyon and NIRPS team



**CRAQ**  
2024

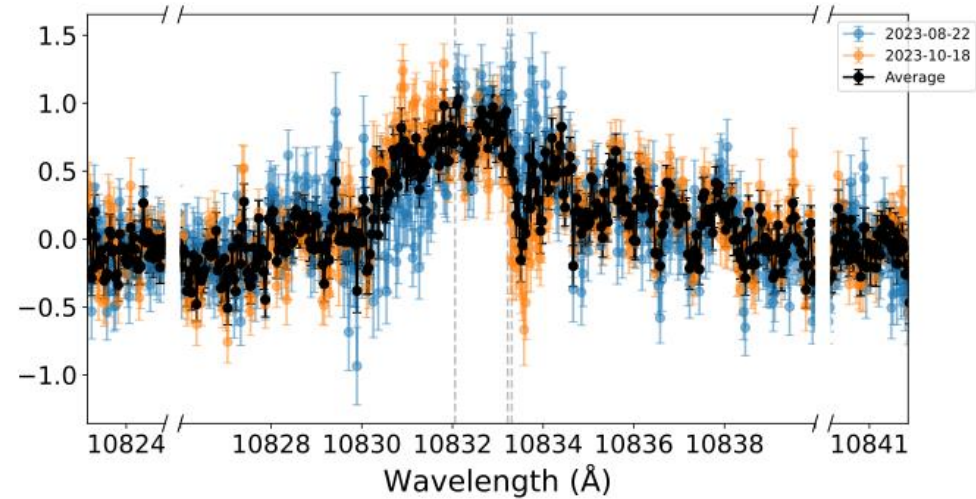
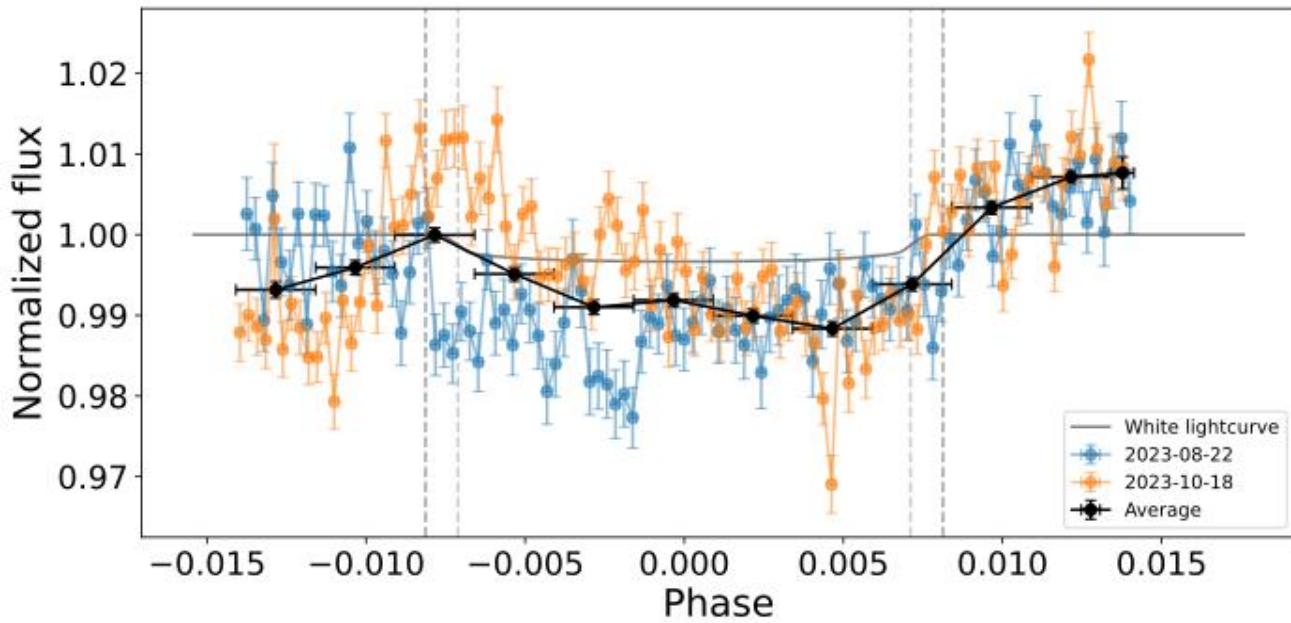
45 Myr Neptune-sized planet around a Sun-like star DS Tuc A

Where is DS Tuc A?

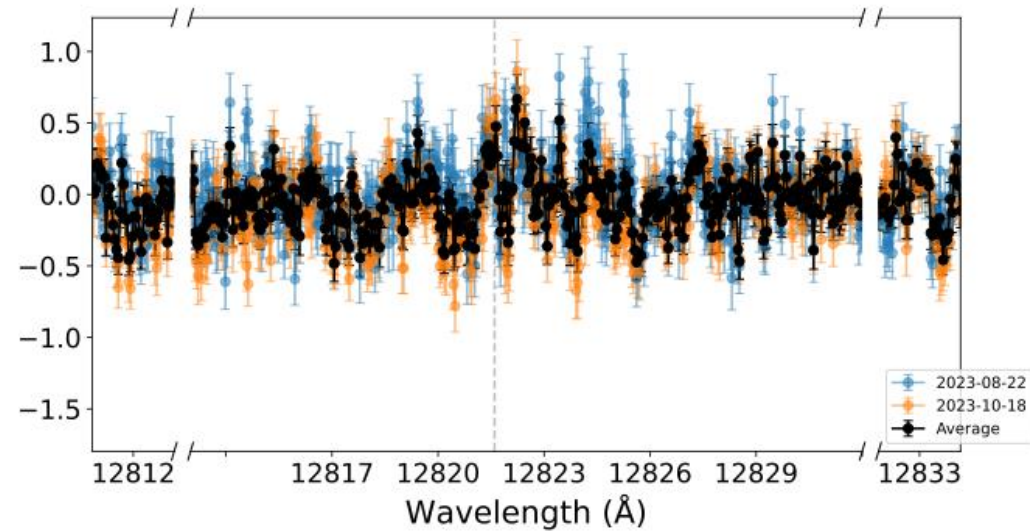
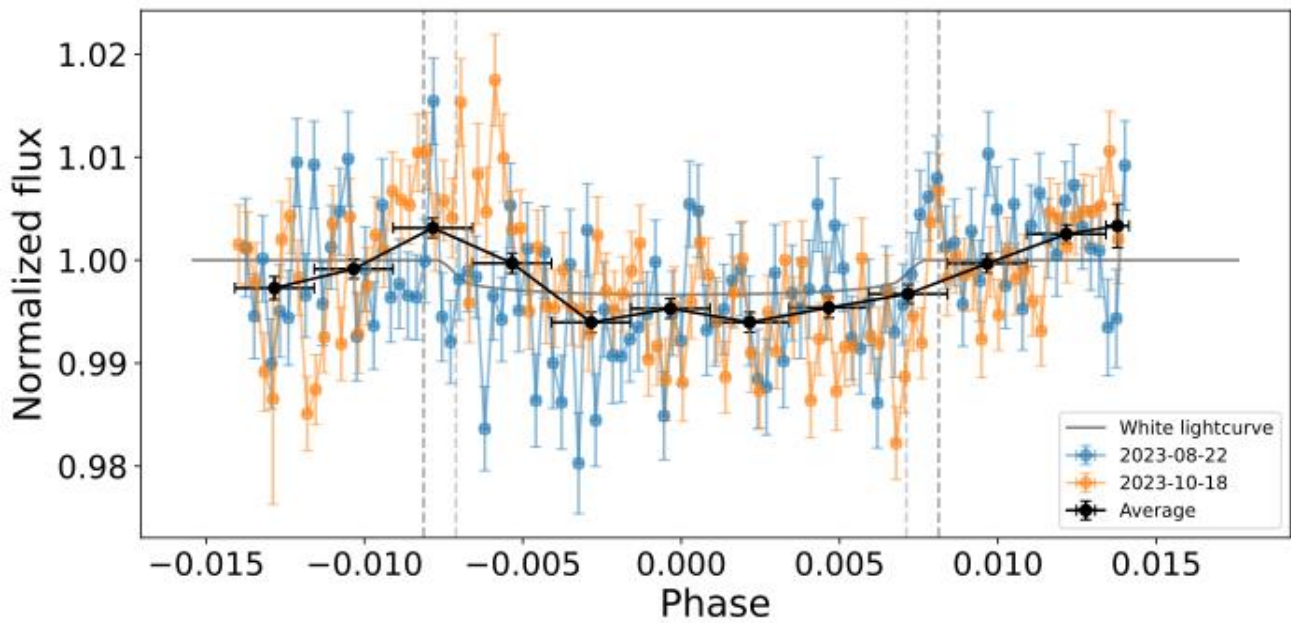


Two transits from NIRPS and HARPS.

Helium  
He I triplet



Hydrogen Pa-beta



We detect Hydrogen and Helium from this young  
Neptune DS Tuc Ab

Youngest planet with positive detection in both  
hydrogen and helium