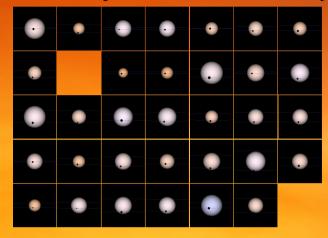
## David R. Anderson - Keele University, SuperWASP Consortium Discovery and characterisation of transiting extrasolar planets

WASP has found more than thirty planets



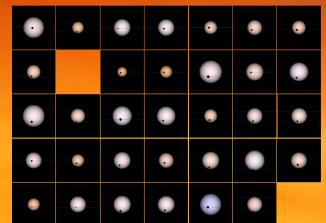
I have been involved in each step of the planet discovery process, from observatory construction to radial velocity confirmation

Whilst continuing with that, I am working on further characterisation



# David R. Anderson - Keele University, SuperWASP Consortium Discovery and characterisation of transiting extrasolar planets

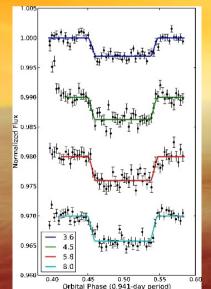
#### WASP has found more than thirty planets

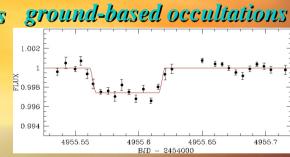


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#### space-based occultations ground

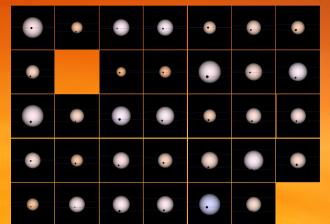






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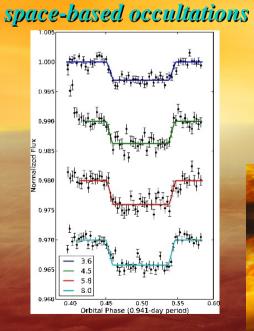
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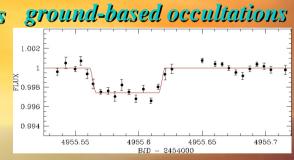


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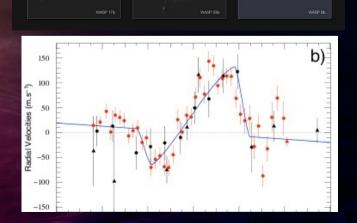
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### spin-orbit angles



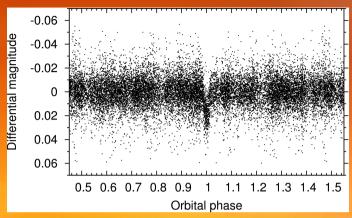




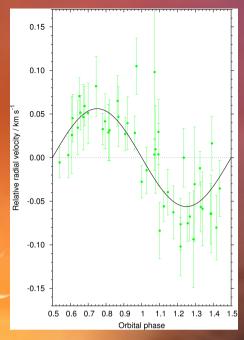




## WASP-31b - a new planet

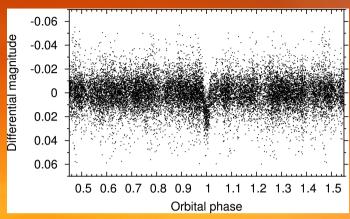


folded light curve  $\rightarrow$  period of  $\sim$ 3.5 days

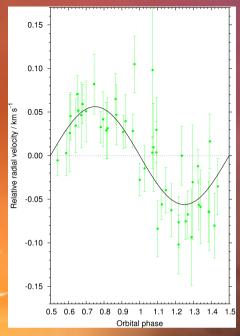


radial velocities  $\rightarrow$  mass of ~0.5  $M_{Jup}$ 

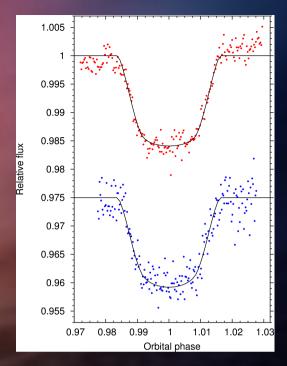
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folded light curve  $\rightarrow$  period of  $\sim$ 3.5 days

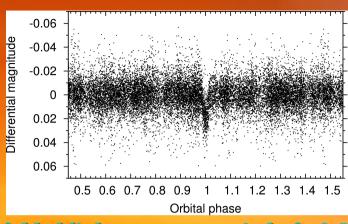


radial velocities  $\rightarrow$  mass of ~0.5  $M_{Jup}$ 

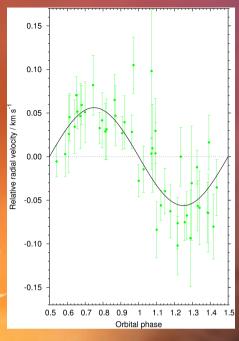


high S/N light curves  $\rightarrow$  radius of ~1.6 R  $_{Jup}$   $\rightarrow$  density of ~0.12  $\rho_{Jup}$ 

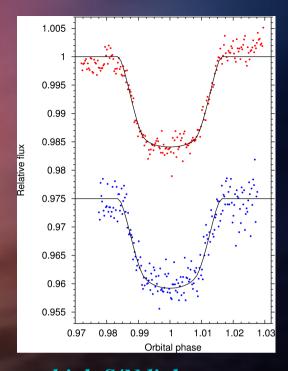
### WASP-31b - a new planet



folded light curve  $\rightarrow$  period of  $\sim$ 3.5 days



radial velocities  $\rightarrow$  mass of ~0.5  $M_{Jup}$ 



high S/N light curves  $\rightarrow$  radius of ~1.6  $R_{Jup}$   $\rightarrow$  density of ~0.12  $\rho_{Jup}$ 



WASP-31b



Jupiter

WASP-31b: a bloated, short-period, giant planet orbiting a sub-solar metallicity F-type star