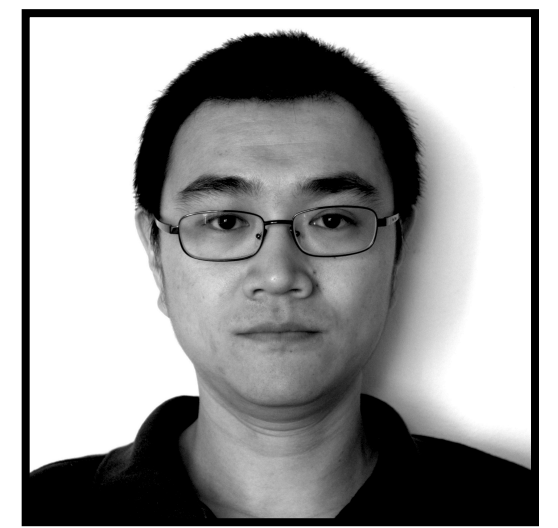




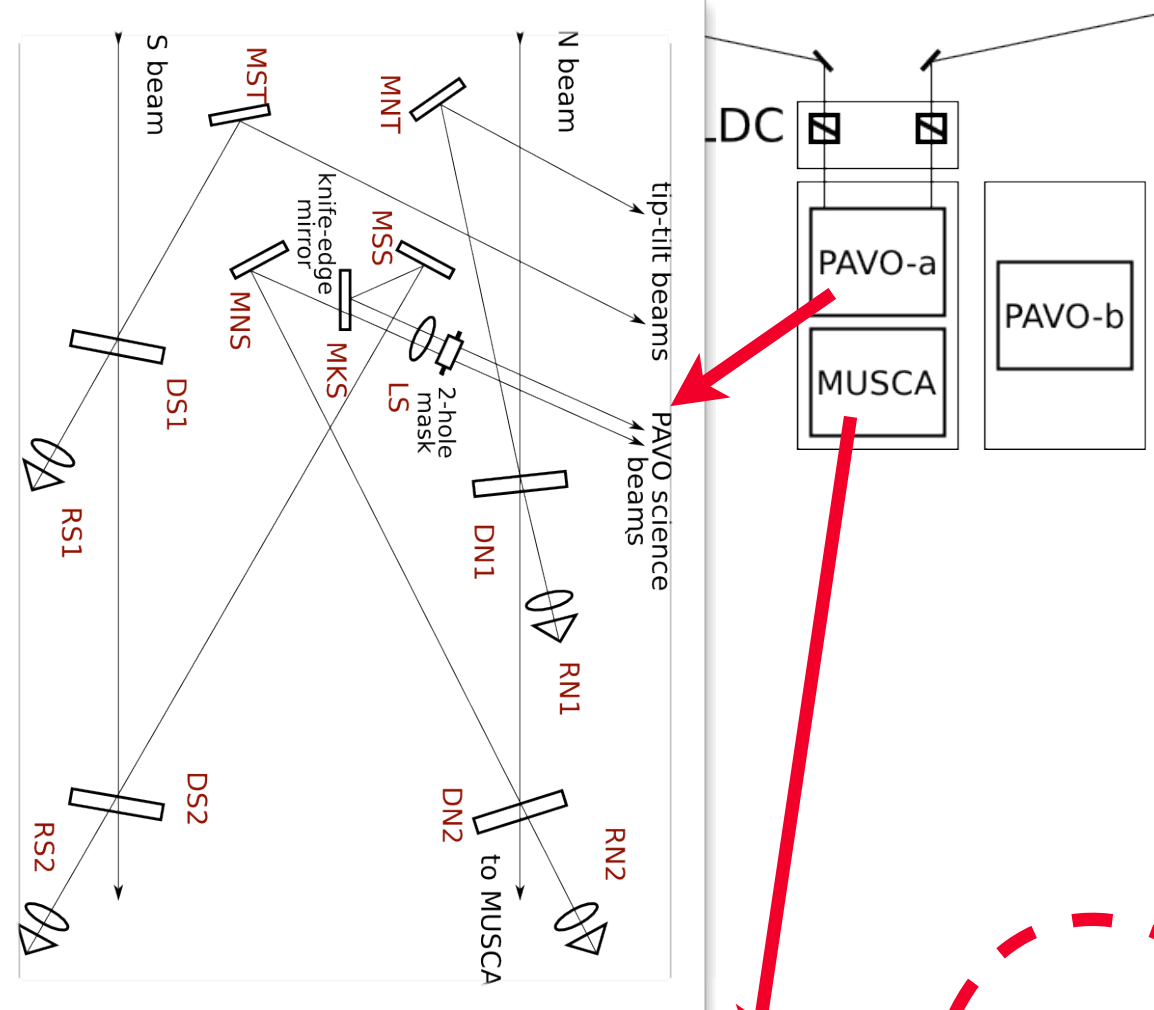
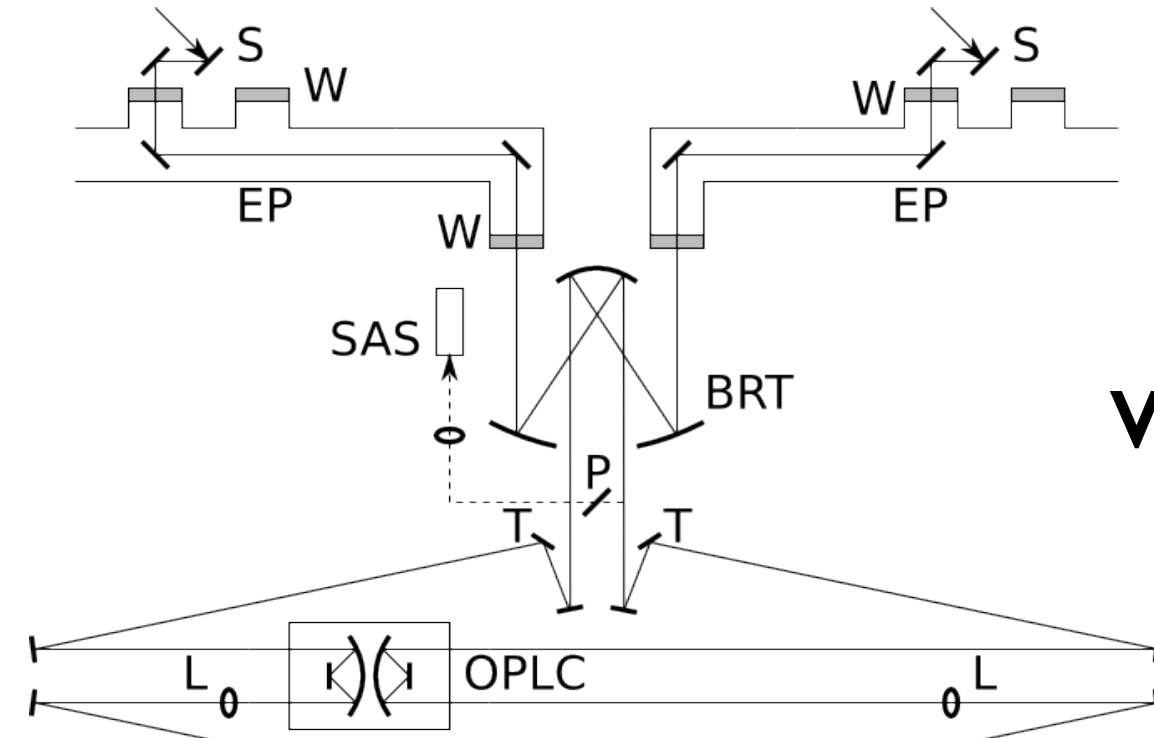
exoplanets



THE UNIVERSITY OF SYDNEY

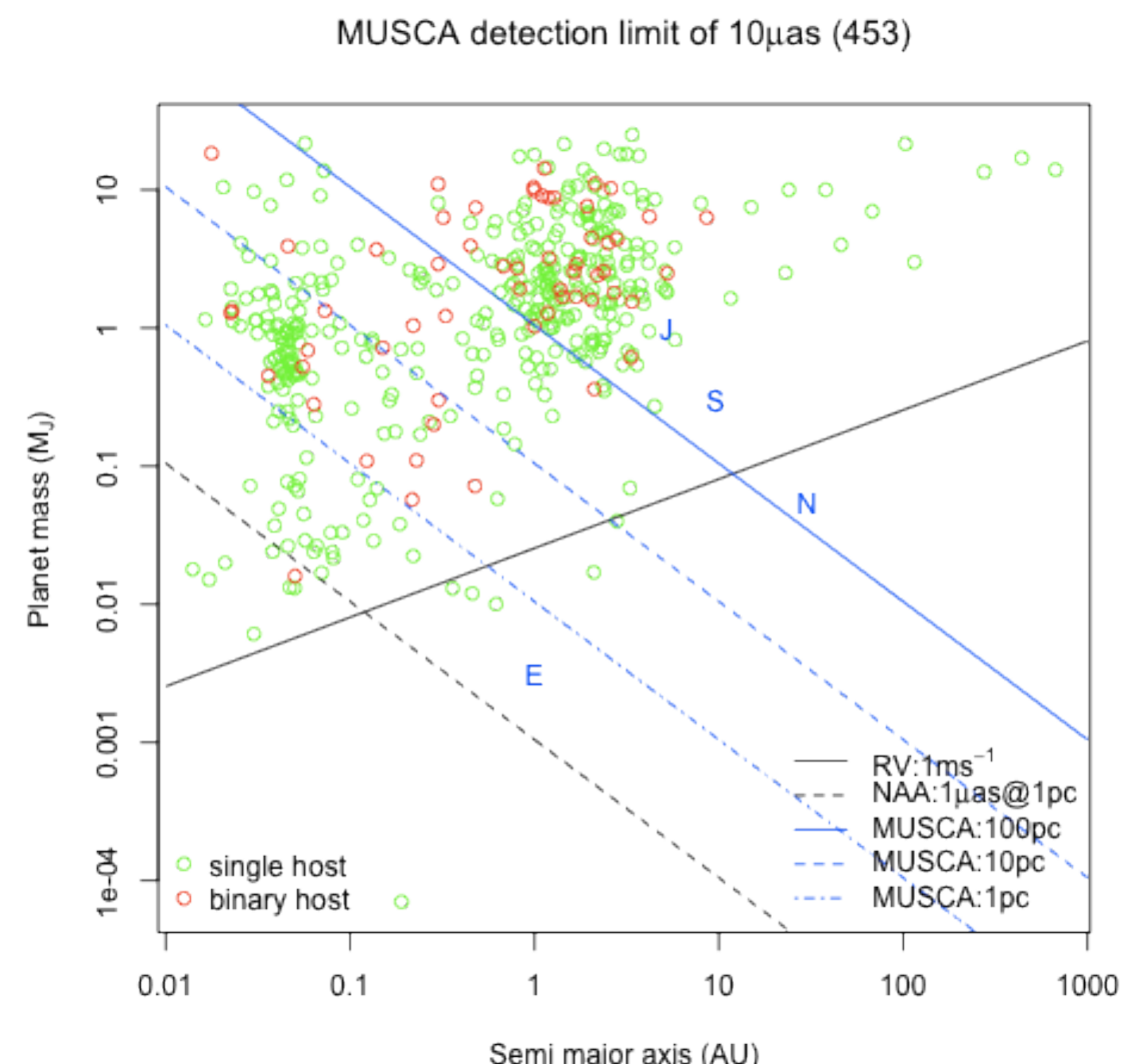
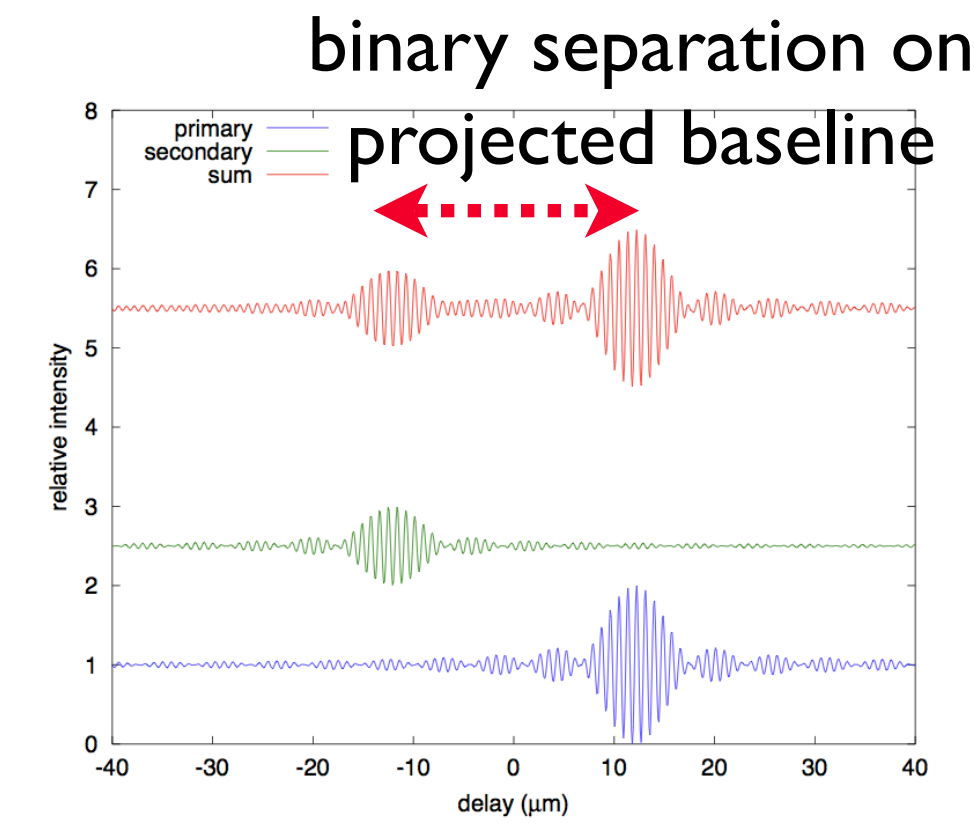
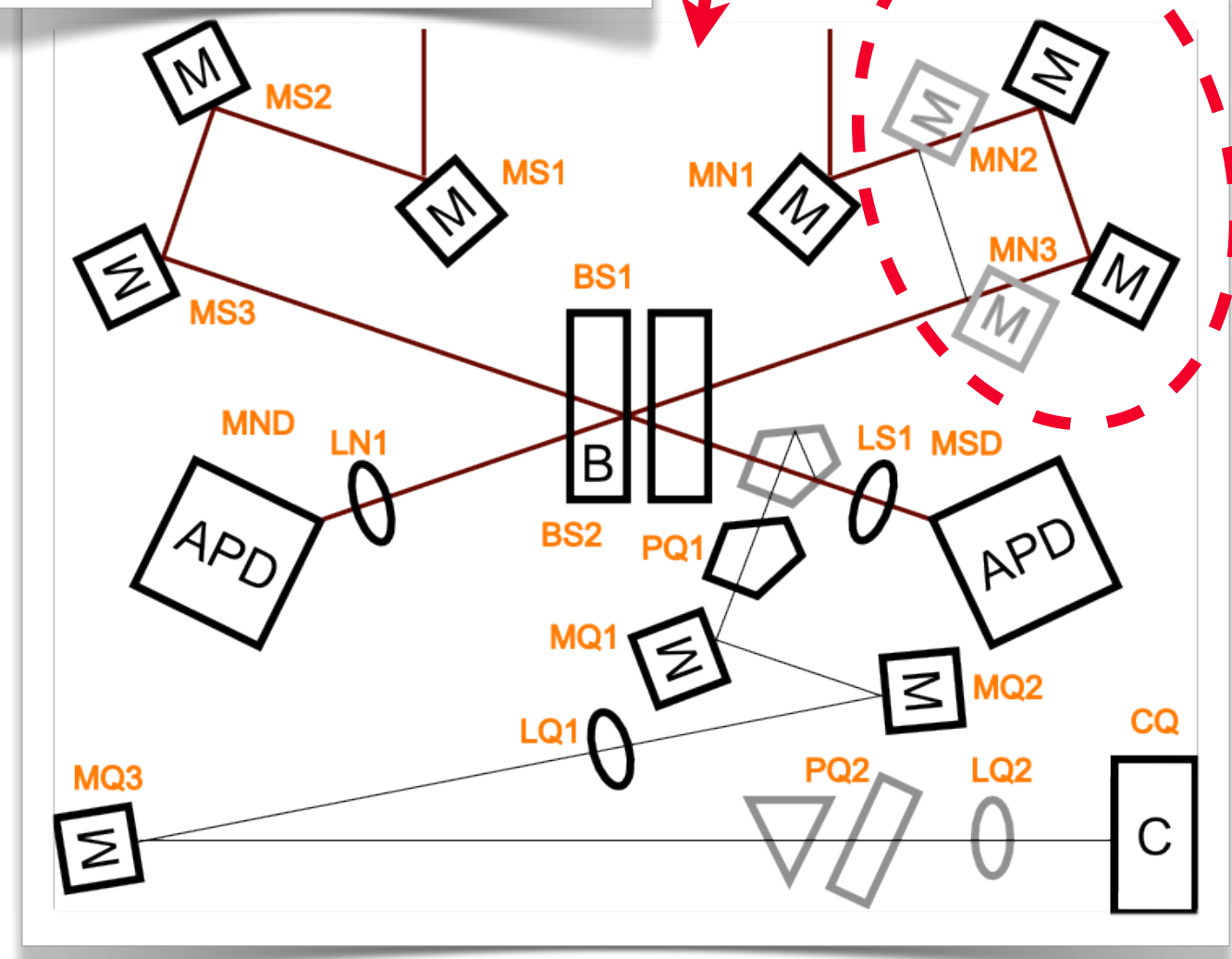


with **Micro-arcsecond** University of **Sydney**
Companion **Astrometry**



MUSCA Vitals	Value
Astrometry λ	0.81 – 0.95 μm
Fringe-tracking λ	0.53 – 0.81 μm
Tip-tilt λ	< 0.53 μm
Metrology λ	0.543 & 0.632 μm
FOV	$\sim 10''$
Astrometric Resolution	$\sim 10 \mu\text{as}$

- ★ MUSCA; new beam combiner in the making
- ★ Very narrow angle astrometry
- ★ Target resolution of $10 \mu\text{as}$
- ★ Search for planets around binary stars
- ★ PAVO* as fringe tracker
- ★ MUSCA to measure separation of binary system
- ★ Targets:
 - ★ $\sim 2M_{\odot}$ stars
 - ★ $\sim M_J$ planets



SUSI% Vitals	Value
Orientation	N-S
Baselines	5, 10, 15, 20, 55, 60, 80, 110, 120, 160 m
Beam combiners	PAVO, MUSCA
Latitude	$30^{\circ} 19' \text{ S}$
Longitude	$149^{\circ} 33' \text{ E}$
Altitude	210m

*Precision **A**stronomical **V**isibility **O**bservation
%**S**ydney **U**niversity **S**tellar **I**nterferometer