

# YSES 3: A giant exoplanet imaged around a young solar-mass apparent binary



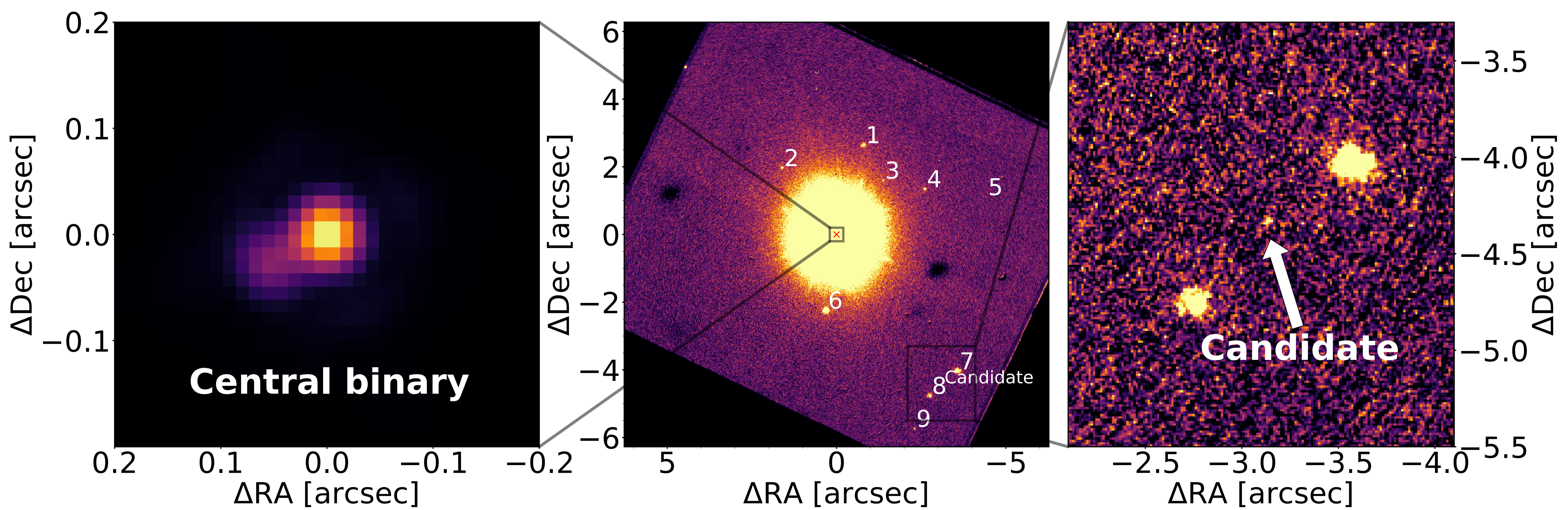
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## Take-home messages:

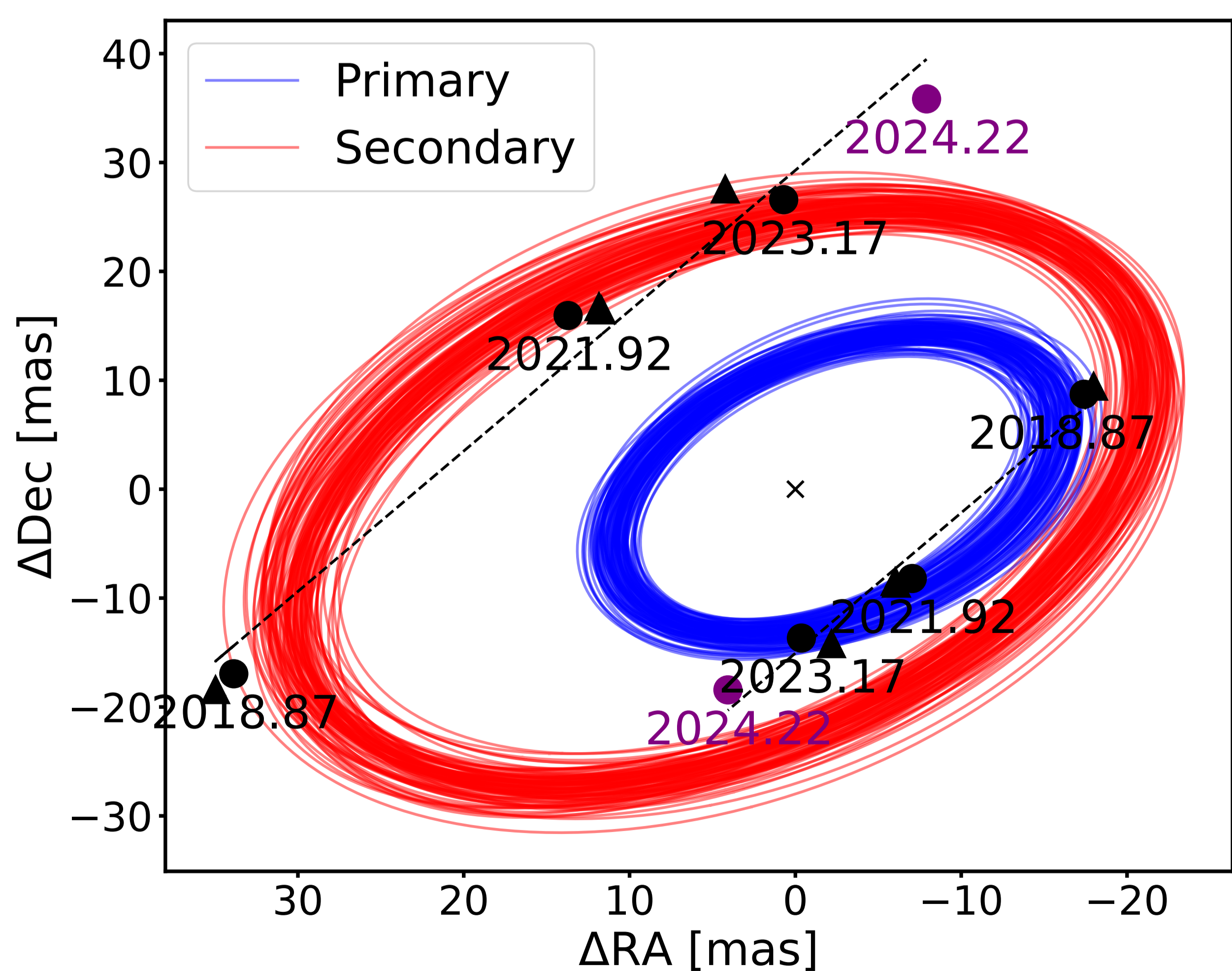
Do not observe close binaries to search for exoplanets by direct imaging! It is far more difficult to do common proper motion analysis compared to single stars. Image alignment, parallax and proper motion are problematic.

Do not assume apparent binaries are always gravitationally bound!

**Woah! We found a planet candidate! Wait, the central star is a binary...**

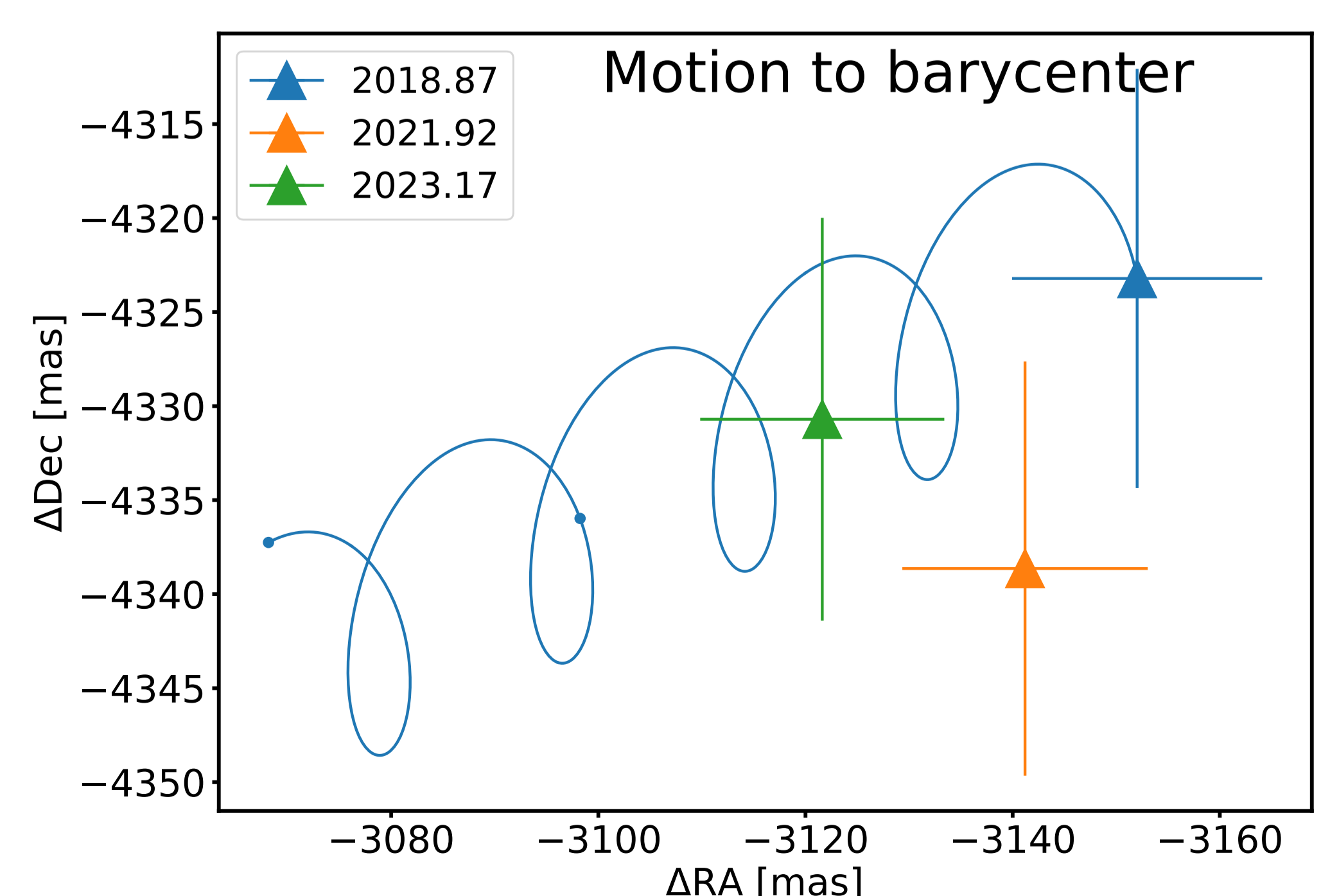
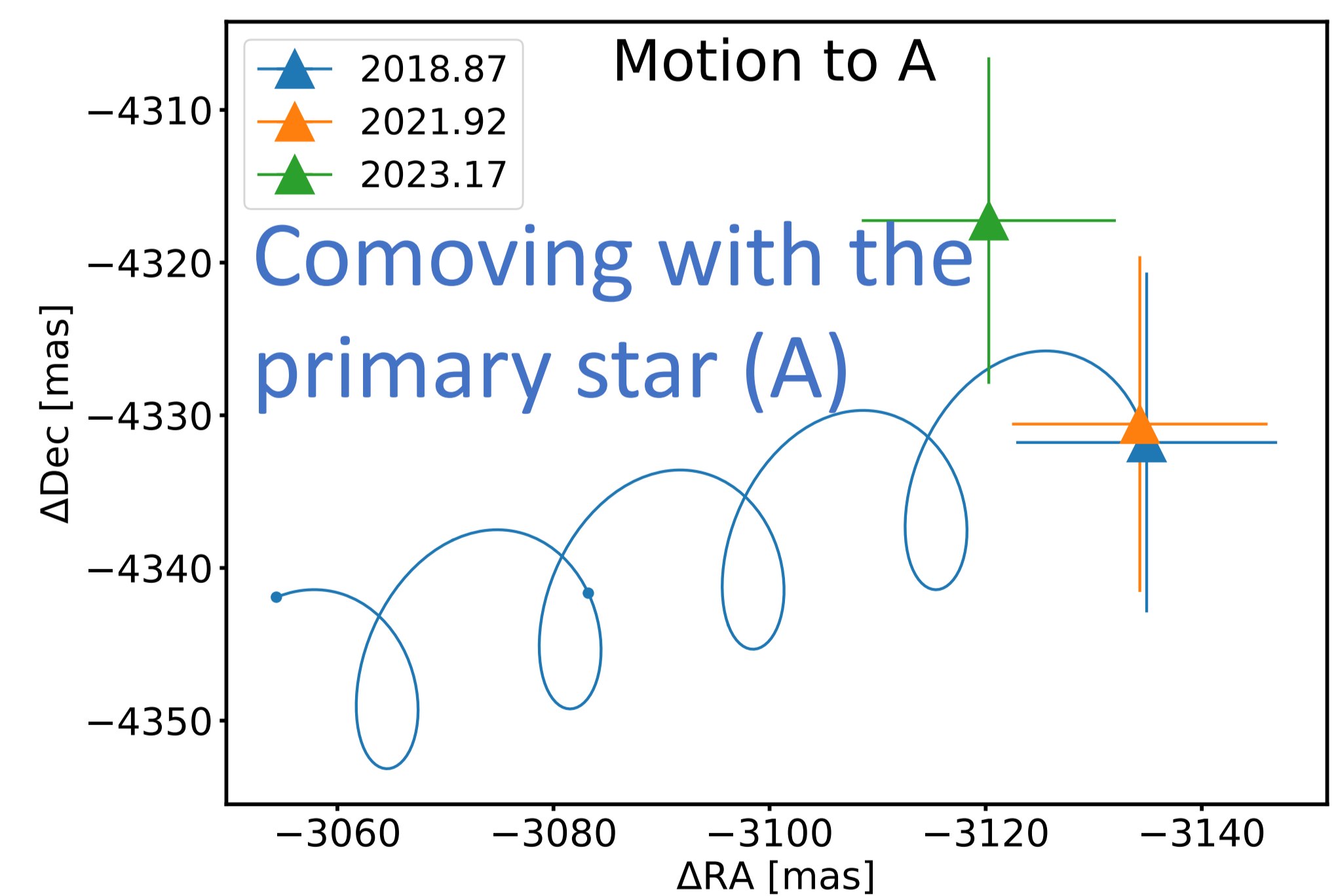


**Are the two stars really bound or just a chance alignment?**



Three pieces of evidence for an unbound system: orbital fitting puzzle, radius puzzle and radial velocity puzzle

**The binarity of the central stars determines the fate of the planet candidate!**



Not comoving with barycenter