

SPOTS

What we do

- SPOTS («Search for Planets Of Two Stars») is the first direct imaging survey dedicated to **circumbinary planets**.
- Scope: 67 nearby young binaries over 3–4 years.
- Method: *H*-band angular differential imaging (ADI).
- Facility: VLT NaCo, VLT SPHERE (starting 2014).

Who we are

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Image credit: ESO

What we seek

- Binary stars make a large fraction of the overall stellar population, yet they are mostly ignored in planet searches.
- Unresolved binaries are the easiest kind of binary to observe.
- Favorable ratio of system mass / luminosity.
- Mechanisms may promote wide-orbit circumbinary planets.
- Binarity influences planet formation in many ways → statistical comparison with single stars might reveal insights on physics of planet formation.
- Imaging a circumbinary planet would be **awesome**.



Image credit: LucasArts

Where we stand

- Pilot survey of 16 targets started in P88 (one year ago). 14 targets observed.
- **Successful proof of concept** for our observing strategy.
- Follow-up of 5 targets and exploration of 16 more survey targets in P90, of which 3 and 13 observed. Carryover into P91.
- First publication in late 2013.

Image credit: SPOTS survey