



Universiteit
Leiden

The Netherlands

Young suns and infant planets: probing the origins of solar systems

Bohn, A.J.

Citation

Bohn, A. J. (2021, September 22). *Young suns and infant planets: probing the origins of solar systems*. Retrieved from <https://hdl.handle.net/1887/3213465>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3213465>

Note: To cite this publication please use the final published version (if applicable).

Propositions accompanying the doctoral thesis

Young suns and infant planets

Probing the origins of solar systems

by Alexander Julian Bohn

1. Surveys that are searching for transiting exoplanets should be accompanied by high-contrast imaging snapshot observations to correct the derived planet properties for the flux contribution of close-by stellar contaminants.

(Chapter 2)

2. Coeval circumstellar disks can be in vastly differing evolutionary stages.

(Chapter 3)

3. A large reference library of point spread functions helps to reveal exoplanets and extended circumstellar structures that are hidden below the bright halo of the primary star from only a few minutes of scientific observations.

(Chapters 3 & 6)

4. Companion candidates at large projected separations (> 100 au) should not be penalized when scheduling follow-up observations, as bound companions might be missed this way.

(Chapters 4, 5, & 6)

5. Short snapshot observations are more efficient than hour-long integrations to discover wide orbit substellar companions to young stars.

6. Young associations such as Scorpius-Centaurus are more favorable for the direct detection of giant companions than young moving groups in the solar neighborhood.

7. To obtain a better census of the occurrence rates of giant wide-orbit companions to young stars it is necessary to combine high-contrast observations with data from large astrometric missions.

8. Registration of a dedicated survey acronym with the IAU can improve the visibility of the survey results.

9. Even though there are less coffee breaks and disruptions when working at home, the overall productivity and scientific output is greater when working in the office.

10. Undergraduate students who are getting paid for their teaching duties are usually better teaching assistants than PhD candidates who have to fulfill these duties alongside their dissertation.