Karl Stapelfeldt

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Relevant Experience:

Astrophysics:	Protoplanetary and Debris Disks, Exoplanets, Star Formation
Techniques:	Optical, infrared, and mm-wave observations; coronagraphy; scattered light and spectral energy distribution modeling of circumstellar disks
Missions:	Hubble Space Telescope WFPC2 Instrument Science Team, Spitzer Space Telescope Project Science Office, Infrared Space Observatory, Herschel Space Observatory, NASA LBTI Exozodi Key Science Team
Mission Studies:	Small coronagraphs Exo-C, ACCESS, ECLIPSE, DDX, Zodiac Larger coronagraphs WFIRST CGI, HabEx, LUVOIR, ATLAST, TPF-C

Authorship on 204 refereed scientific papers with 16,945 citations. H-Index of 70. PI or co-I on 87 peer reviewed space science grants 1990-2019. Webmaster for <u>https://circumstellardisks.org</u>, an online compendium of spatially resolved disks

Education:

- Ph. D., Astrophysics, California Institute of Technology, 1991.
- B.S.E. Mechanical & Aerospace Engineering and Engineering Physics, Princeton 1984

Current Position:

2016–present Chief Scientist, NASA Exoplanet Exploration Program Office, NASA/JPL

Previous Positions:

2011-2016:	Chief, Laboratory for Exoplanets and Stellar Astrophysics, NASA Goddard
2005–2011:	Principal Scientist, Earth & Space Sciences Division, NASA/JPL, Pasadena CA
1994-2005:	Research Scientist, Earth & Space Sciences Division, NASA/JPL, Pasadena CA
1990-1993:	Postdoctoral Researcher, Dept. of Astronomy, Univ. of Massachusetts, Amherst

Professional Service:

Chair of the Science & Technology Definition Team, Exo-C probe mission study (2013-2015) Chair, NASA Exoplanet Archive Users' Group (2014-2016). Member, NASA Advisory Council Astrophysics Subcommittee (2012-2014). Member of the SOC for 14 conferences 1998-2021. HST Users' Committee (2001-2003). Reviewer for six professional journals, numerous time allocation committees, and six different categories of NASA and NSF proposals

Selected Publications:

- Faramaz, V., Krist, J.E., Stapelfeldt, K. et al. (2019) "From Scattered-light to Millimeter Emission: A Comprehensive View of the Gigayear-old System of HD 202628 and its Eccentric Debris Ring", A.J. 158 162
- Robinson, T., **Stapelfeldt, K.**, Marley, M (2016) "Characterizing Rocky and Gaseous Exoplanets with 2-meter Class Space-based Coronagraphs: General Considerations", P.A.S.P. 128 5003
- **Stapelfeldt, K.** et al. (2015) <u>Exo-C Mission Study Final Report</u>, NASA Exoplanet Exploration Program internal document on probe-scale mission concept for exoplanet coronagraphy
- Kalas, P. et al. (2008) "Optical Images of an Exosolar Planet 25 Light-Years from Earth" Science 322 1345