

Press release**Max-Planck-Institut für Astronomie****Dr. Markus Nielbock, Dr. Klaus Jäger - MPIA Presse- und Öffentlichkeitsarbeit**

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<http://idw-online.de/en/news746902>Organisational matters, Personnel announcements
Physics / astronomy
transregional, national**Laura Kreidberg new director at MPIA**

Beginning May 15, 2020, Laura Kreidberg will be the new third director at the Max Planck Institute for Astronomy (MPIA) in Heidelberg. Kreidberg was most recently a Clay Fellow at the Center for Astrophysics, Harvard and Smithsonian. She initiates and conducts world-leading research projects to characterize the atmospheres of planets around other stars. Starting this summer, she will establish and head a new department at MPIA, which will be closely linked to the existing departments at the institute.

In the last two decades, the international success of the MPIA has been characterized by two large scientific departments. Under the leadership of Director Hans-Walter Rix, one conducts research at MPIA in the field of Galaxies and Cosmology (Department GC), while the other department, headed by Director Thomas Henning, works in the field of Planet- and Star Formation (PSF). Both departments are connected in many ways - also through the construction of high-tech instrumentation for large ground-based or space-based observatories.

With the new department of Laura Kreidberg, a third, young and internationally strongly emerging field of research will now be added: Atmospheric Physics of Exoplanets (APEX).

Exoplanets are planets orbiting other stars - very much like Earth, Mars or Jupiter in our Solar System. The first exoplanet was discovered just a quarter century ago, and since then, several thousands more have been found - in some cases even entire planetary systems. The variety of exotic objects discovered is just as impressive as the fact that many planet candidates with Earth-like properties have been found. In the future, a decisive key to the physical and chemical characterization of all these alien worlds will be the exploration of their atmospheres - in particular important because of the increasing evidence that the formation of life or its precursors might be a common process in the universe.

In her young career, Laura Kreidberg has already achieved a series of groundbreaking results in this field of research, which is still in its infancy. Simply discovering exoplanets is an extraordinary feat, and detecting the tiny signals from these planets' atmospheres presents an even more daunting challenge. Laura Kreidberg has led pioneering studies of the chemical composition, climate, and cloud properties of benchmark systems, ranging from hot Jupiters to terrestrial exoplanets similar in size to the Earth. With innovative observation methods that must be developed to push towards the characterization of Earth analogs, the new department will not only enrich the research at MPIA, but will also have a decisive influence on the renowned building of astronomical instrumentation in the coming decades of the institute.

Laura Kreidberg studied at Yale University and the University of Chicago, did research at Harvard, and has received several awards for her scientific achievements. She will begin her work in the main office at MPIA on the Königstuhl in summer 2020.

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Laura Kreidberg
Photo: Laura Kreidberg/MPIA