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**UNIVERSITÄT
BERN**

Seminar über Ultrafast Science and Technology

Referent/in: Jonas Kühn, SPACE, NCCR Planets, Universität Bern

Titel: Prototyping the exoplanet imager instruments of the future: SLM-based active coronagraphy, from the lab to the 4-m DAG telescope in 2022

Since 2015, I led a SNF-Ambizione research project at ETH Zurich aimed at exploring a new instrumental approach to high-contrast exoplanet imaging, using active liquid-crystal spatial light modulator (SLM) panels in place of classical coronagraphic phase masks, commonly in use to mask the host star. I will present the current status of this work, uncovering the new capabilities that this technique can offer to observers, and the potentially important role it could play in the era of extremely large ground- or space-based segmented apertures. Finally, I will unveil the newly funded PLACID (Programmable Liquid-crystal Active Coronagraphic Imager for the DAG telescope) instrument project, an on-sky demonstrator exoplanet imager for the upcoming Turkish DAG 4-m telescope, that will be built within the next 2 years by a consortium comprised of the University of Bern and the Engineering School of Yverdon (HEIG-VD).

Zeit: Donnerstag, 22.10.2020 11:15 Uhr

Ort: **Hörsaal B116**, Gebäude Exakte Wissenschaften, Sidlerstrasse 5, Bern, Schweiz