

Geographisches Kolloquium

Wintersemester 2022/2023

Tuesday, 6 December, 2022 **Dr. Gohar Ghazaryan, ZALF & HU**Geography Department

Humboldt-Universität zu Berlin



Earth observation for monitoring agriculture under climate change

Increasing crop production and resilient agriculture are essential to meet the rising food demand. To close the yield gap, it is critical to understand how climate extremes and management impact crop condition in a spatially explicit and scalable manner. The advancement of satellite remote sensing, such as the free distribution of satellite archives and the availability of new sensors give more opportunities to derive relevant metrics describing crop growth and condition. The presentation will focus on the synergistic use of different remote sensing based time series such as data from MODIS, Landsat, and Sentinel -1/2 for monitoring cropping systems. Several examples from the recent analysis will be presented. These include the monitoring of phenology, the assessment of drought impact at field and regional level, and mapping of irrigated fields. We will also explore the impacts of climate variability and management on crop condition and production.



Erwin-Schrödinger Zentrum Rudower Chaussee 26 Raum: 0'311