# Astronomy Seminar

**Dr. Qinghui Sun（孙清辉）**

**(Tsinghua University)**

## Exploring Stellar Physics and Star-Planet Interaction through the Lens of stellar Chemical Abundance

**Time:** 10:00-10:40, 15 April (Monday), Shanghai time

**Venue：** N499（TDLI）

**Host:** Jianglai Liu

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**Meeting ID:** 572301659

## Abstract:

Photometric and spectroscopic observations reveal essential stellar characteristics, including chemical abundance, radial velocity, multiplicity, mass, distance, and age. Open clusters offer a homogeneous stellar sample with consistent age and chemical composition, facilitating systematic exploration of various stellar mechanisms. Lithium, initially synthesized during Big Bang Nucleosynthesis and subsequently produced within galaxies, are destroyed in the hot stellar interiors with temperatures exceeding 2.5 MK. Thus, lithium serves as an important tracer of internal stellar processes and contributes to testing cosmological models. Moreover, the age and chemical compositions of host stars play a significant role in shaping planetary systems. This talk addresses various aspects of stellar astrophysics and their interplay with planets, including stellar properties, the Lithium pattern in both dwarf and giant stars, and the relationship between planets and their host stars.

## Biography:

Dr. Qinghui Sun is a Postdoctoral Shuimu fellow at Tsinghua University, China. She earned her Ph.D. in Astrophysics from Indiana University in February 2021 and B.S. in Astronomy at Nanjing University in July 2015. She specializes in studying stellar properties and the interactions between planets and their host stars.