



# Münchner Physik- Kolloquium

Sommer  
2018

## Shedding light on the dark cosmos through gravitational lensing

**Prof. Dr. Sherry Suyu**, *Technische Universität München and  
MPI für Astrophysik, Garching*

Monday, 30 April 2018, 17:15 h

Hörsaal H 030, Fakultät für Physik der LMU, Schellingstraße 4, München

Strong gravitational lenses with measured time delays between the multiple images can be used to determine the Hubble constant that sets the expansion rate of the Universe. Measuring the Hubble constant is crucial for inferring properties of dark energy, spatial curvature of the Universe and neutrino physics. I will describe techniques for measuring the Hubble constant from lensing with a realistic account of systematic uncertainties. A program initiated to measure the Hubble constant to  $< 3.5\%$  in precision from strong lenses is in progress. Search is underway to find new lenses in imaging surveys. An exciting discovery of the first strongly lensed supernova offered a rare opportunity to perform a true blind test of our modeling techniques. I will show the bright prospects of gravitational lens time delays as an independent and competitive cosmological probe.

## Student event: Meet the speaker

We invite you to a **student-only** discussion-round with Prof. Dr. Sherry Suyu before her Munich Physics Colloquium talk.

*Be curious and feel free to ask any question.*

Monday, 30 April 2018, 16:00 h

Room H 522 (5th floor), Fakultät für Physik der LMU, Schellingstraße 4, München

