



Berliner Physikalisches Kolloquium

im Magnus-Haus, Am Kupfergraben 7, 10117 Berlin

Eine gemeinsame Veranstaltung der Physikalischen Gesellschaft zu Berlin e.V.,
der Freien Universität Berlin, der Humboldt-Universität zu Berlin,
der Technischen Universität Berlin und der Universität Potsdam
– gefördert durch die Wilhelm und Else Heraeus-Stiftung –

Am Donnerstag, dem **4. Juni 2020**, um **18:30 Uhr**

spricht

Prof. Dr. Sherry H. Suyu

**Max-Planck-Institut für Astrophysik und Fakultät für Physik,
Technische Universität München, Garching**

über das Thema

„Cosmology with Gravitational Lens Time Delays“

Moderation: Thomas Lohse, Humboldt-Universität zu Berlin

Strong gravitational lenses with measured time delays between the multiple images can be used to determine the Hubble constant (H_0) that sets the expansion rate of the Universe. An independent determination of H_0 is important to ascertain the possible need of new physics beyond the standard cosmological model, given the tension in current H_0 measurements. I will describe techniques for measuring H_0 from lensing with a realistic account of systematic uncertainties, and present the latest results from a program aimed to measure H_0 from lensing. 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.