Research Training Group
Graduiertenkolleg
Models of Gravity

RTG Colloquium Models of Gravity	
Date:	12 May 2021
Time:	14:00 - 16:30 CET
Location:	University of Oldenburg/Online Online link: https://ucl.zoom.us/j/94613189106 Meeting-ID: 946 1318 9106 Wonder room for the coffee break: https://www.wonder.me/r?id=f123fe5d-67f8-42aa-beac-b320bdf5fc0f

Program

14:00 – 15:00 Talk 1: **Dr. Kamal Hajian** (HWK Delmenhorst)
"Black hole temperature in Horndeski gravity"
In Horndeski gravities, which are the most generic scalar-tensor theories without ghosts, the speed of graviton can be different w.r.t other massless particles/waves such as photons. We will show that this leads to a black hole temperature which is different from the standard Hawking temperature by an overall factor. The factor depends on black hole properties as well as the Lagrangian. Using this modified temperature, the first law of thermodynamics for black holes in Horndeski gravities is recovered.

15:00 – 15:30 Coffee Break in the wonder room

15:30 - 16:30 Talk 2: **Dr. Ivonne Zavala** (Swansea University, Wales)
"Dark energy in string theory and supergravity"
I will review progress in understanding present day cosmological acceleration in string theory and supergravity. I will first discuss recent progress and chal-lenges on realising dynamical dark energy in these theories. Then, I will briefly discuss a recent new approach to de Sitter solutions in supergravity and its possible realisation in string theory.