

## Location

The spring workshop will be online.

### Zoom Meeting

<https://ucl.zoom.us/j/94722098318?pwd=MFBLOE5rckpqQ0Y3STZEUVV1NTJTQT09>

Meeting ID: 947 2209 8318

Passcode: 078825

One tap mobile

+16699006833,,94722098318# US (San Jose)

+19292056099,,94722098318# US (New York)

Dial by your location

+1 669 900 6833 US (San Jose)

+1 929 205 6099 US (New York)

+1 253 215 8782 US (Tacoma)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

+1 346 248 7799 US (Houston)

Find your local number:

<https://ucl.zoom.us/j/94722098318?pwd=MFBLOE5rckpqQ0Y3STZEUVV1NTJTQT09>

Wonder room:

<https://www.wonder.me/r?id=f123fe5d-67f8-42aa-beac-b320bdf5fc0f>

## Participating Universities



## Participating Institutes



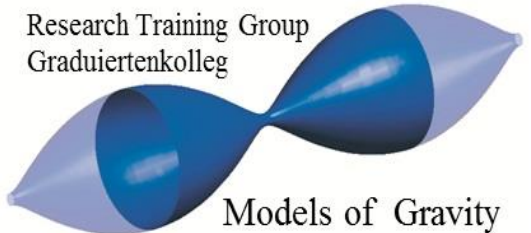
## Funded by



## Contact

secretariat@models-of-gravity.org  
www.models-of-gravity.org

# Spring Workshop 2021



21. – 25. June 2021  
online

## Monday, 21.06.2021

### 17:00 – 19:00 Session One

17:00 – 17:05 **Welcome**

17:05 – 18:30 **Betti Hartmann** (University College London) and **Carla Schriever** (Uni Oldenburg)  
*Ayn Rand (Philosopher) & Maria Goeppert-Mayer (Physicist)*

18:30 – 19:00 **Discussion**

19:00 **Virtual Reception in the Wonder Room**

## Tuesday, 22.06.2021

### 8:00 – 10:00 Session Two

08:00 – 08:30 **Jan Hackstein** (ZARM, Uni Bremen)  
*Photon region and shadow in a spacetime with a quadrupole moment*

08:30 – 09:30 **Edward Malec** (Jagiellonian University, Kraków)  
*Rotating general-relativistic tori: numerical results, bifurcation and a challenge for mathematics*

09:30 – 10:00 **Wojciech Kulczycki** (Jagiellonian University, Kraków)  
*Rotating general-relativistic tori: on numerics and programming*

### 17:00 – 19:00 Session Three

17:00 – 18:00 **Jose Luis Blázquez-Salcedo** (Complutense University of Madrid)  
*Traversable wormholes in Einstein-Dirac-Maxwell theory*

18:00 – 18:30 **Sarah Kahlen** (Uni Oldenburg)  
*Quasinormal modes of spherically symmetric black holes in Einstein-Maxwell-scalar theory*

18:30 – 19:00 **Shokufe Faraji** (ZARM, Uni Bremen)  
*Properties of accretion disks with quadrupole*

## Wednesday, 23.06.2021

### 8:00 – 10:00 Session Four

08:00 – 08:30 **Sandro Goedtel** (ZARM, Uni Bremen)  
*Bose-Einstein condensate with Yukawa-type gravitational selfinteraction*

08:30 – 09:00 **Jan-Menno Memmen** (ZARM, Uni Bremen)  
*Geometrically thick tori around compact objects with a quadrupole moment*

09:00 – 10:00 **Helmut Friedrich** (AEI, Golm)  
*On our early past and late future*

### 17:00 – 19:00 Session Five

17:00 – 18:00 **Yuko Urakawa** (KEK, Japan)  
*Signature of axion dark matter through gravitational messenger*

18:00 – 19:00 **Lucas Collodel** (Uni Tübingen)  
*Circular Orbit Structure and Thin Accretion Disks around Kerr Black Holes with Scalar Hair*

## Thursday, 24.06.2021

### 8:00 – 10:00 Session Six

08:00 – 09:00 **Alexander F. Zakharov** (BLTP, JINR, Dubna)  
*Observations of bright stars near the Galactic Center and observations of shadows at Sgr A\* and M87\* as tools to test gravity theories*

09:00 – 10:00 **Beatrice Bonga** (Radboud University, Nijmegen)  
*Resonances in black hole spacetimes*

## Thursday, 24.06.2021

### 17:00 – 19:00 Session Seven

17:00 – 18:00 **Francesca Vidotto** (Western University Ontario)  
*Black Holes and Quantum Gravity: theory and possible observations*

18:00 – 19:00 **Christian Böhmer** (University College London)  
*Modified theories of gravity - foundations and models*

## Friday, 25.06.2021

### 8:00 – 10:00 Session Eight

08:00 – 08:30 **Mourad Halla** (ZARM, Uni Bremen)  
*A Morse-theoretical analysis of gravitation lensing by rotating traversable wormholes*

08:30 – 09:30 **Sam Dolan** (University of Sheffield, UK)  
*Black holes, classical fields and geometric optics*

09:30 – 10:00 **Torben Frost** (ZARM, Uni Bremen)  
*Gravitational lensing by charged accelerating black holes*

All times in CEST