

Location

The spring workshop will be held at ZARM, University of Bremen in **room 1730**.

The address of the workshop is:

Center of Applied Space technology and Microgravity (ZARM), University of Bremen, Am Fallturm, 28359 Bremen.

<https://www.zarm.uni-bremen.de/de/>

Directions

By public transport

By train:

The central station is located right in the heart of the city center and ZARM can be easily reached by taxi and tram. If you take the exit "City" you will find a tram station right in front of the of the central railway station. Please take line 6 direction "Universität" and after 10 minutes you will reach ZARM. Please get off the tram at "Universität Nord", and you will spot the drop tower 50 m ahead of you. By taxi, you will reach ZARM in 10 - 15 minutes, and the fare is about 14.00 EUR. The German word for drop tower is "Fallturm", a building and address most taxi drivers will be familiar with.

By car

If you are traveling by car, please follow the directions at <https://www.zarm.uni-bremen.de/en/contact.html>

By plane

Flights to and from Bremen airport (BRE) can be found at <http://airport-bremen.de/>

Participating Universities



Participating Institutes



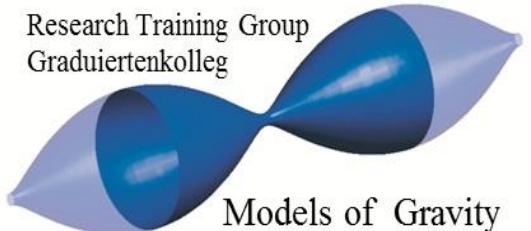
Funded by



Contact

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Spring Workshop 2020



02. – 04.03.2020

ZARM

University of Bremen

Monday, 02.03.2020

13:00 – 17:00 Session One

13:00 - 13:30 *Welcome Coffee*

13:30 - 14:30 **Torsten Asselmeyer-Maluga** (Berlin)
Cosmology and 4-manifolds: a geometric/topological model of dark matter and dark energy

14:30 – 15:30 **Boris Vertmann** (Oldenburg)
Mean curvature flow of space-like hypersurfaces

15:30 - 16:00 *Coffee*

16:00 - 17:00 **Gonzalo Olmo** (Valencia)
Particle creation by wormholes? A toy model.

19:00 Session Two - Public talk at "Haus der Wissenschaft"

19:00 **Matthias Bartelmann** (Heidelberg)
Schwarze Löcher, Gravitationswellen und das Schicksal des Universums

20:30 *Conference Dinner at "Ratskeller"*

Tuesday, 03.03.2020

09:00 – 12:30 Session Three

09:00 - 10:00 **Anna Nelles** (Erlangen)
Radio Detection of Neutrinos

10:00 - 11:00 **Victoria Grinberg** (Tübingen)
X-ray binaries as observational probes for black hole physics

11:00 - 11:30 *Coffee*

11:30 - 12:30 **Marek Abramowicz** (Göteborg)
Gravitational waves from ultra compact stars and on the EHT images of ultra compact stars and wormholes.

12:30 - 14:00 *Lunch*

14:00 – 18:00 Session Four

14:00 - 15:00 **Axel Pelster** (Kaiserslautern)
Bose-Einstein Condensation in Micro-gravity - Challenges and Perspectives

15:00 – 16:00 **Hildegard Meyer-Ortmanns** (Bremen)
The Physics of Complex Systems and the Search for Universal Mechanisms

16:00 - 16:30 *Coffee*

16:30 - 17:30 **Pedro Cunha** (Potsdam)
100 years of light deflection, where we are now: EHT, scalar hair and the M87 supermassive black hole

17:30 – 18:00 **Marvin Pinkwart** (Bremen)
Quantum Aspects of Cosmology

19:30 Session Five - Olbers-Lecture at "Hochschule Bremen"

19:30 **Andreas Eckart** (Köln)
Die Kerne von Galaxien: Vom Galaktischen Zentrum bis zu Quasaren

Wednesday, 04.03.2020

09:00 – 12:30 Session Six

09:00 – 10:00 **Matthias Bartelmann** (Heidelberg)
Cosmic structure formation with analytic methods

10:00 – 11:00 **Leo Brunswick** (Lyon)
Some known effects of topology on the large scale behaviour of a spacetime

11:00 – 11:30 *Coffee*

11:30 – 12:30 **Gonzalo Olmo** (Valencia)
Visibility and impact of your research

12:30 – 14:00 *Lunch*

14:00 – 16:00 Session Seven

14:00 – 15:00 **Marek Abramowicz** (Göteborg)
The Fast Radio Bursts

15:00 - 15:30 **Shokoufe Faraji** (Bremen)
Thin Accretion disk around a distorted static black hole

15:30 – 16:00 *Coffee*