

## PHYSIKALISCHES KOLLOQUIUM

**Sommersemester 2024**

Das Kolloquium findet (soweit unten nicht anders angegeben) jeweils montags **jeweils montags um 16:15 Uhr online via Zoom** statt.

(Der jeweilige Link wird noch zur Verfügung gestellt.).

**29.04.2024**

Prof. Dr. Pedro Schwaller

Johannes-Gutenberg-Universität Mainz, Theoretische Hochenergiephysik (THEP)

**Probing dark sectors with gravitational waves**

### **Abstract**

Gravitational waves provide a new window into the early Universe, and thus a new way of probing the dynamics of dark sectors. In my talk, I will provide an overview of primordial gravitational wave sources, including cosmological phase transitions, cosmic strings, domain walls, and axion dynamics. I will then highlight what we have learned recently about phase transitions in strongly coupled theories. Finally I will discuss interpretations of the stochastic gravitational wave background recently observed in pulsar timing experiments in terms of new physics models.

Für die Dozentinnen bzw. Dozenten der Fakultät

Prof. Dr. Hinkov, Prof. Dr. Hinrichsen, Prof. Dr. Porod, Dr. Ünzelmann und Hr. Kuhr