CARL VON OSSIETZKY universität OLDENBURG
FAKULTÄT V
MATHEMATIK UND NATURWISSENSCHAFTEN

Institut für Physik

Theoriekolloquium

Am **28. November 2019** um **14.15 Uhr** in **W2 1-143** hält

Frau Prof. Dr. Petya Nedkova (Sofia)

einen Vortrag mit dem Titel

Black holes shadow: the image of black holes

The phenomenon of black hole shadow was theoretically predicted already in the 1970's in some of the classical works in general relativity. For decades the effect was considered primarily of academic importance until with the advance of the contemporary experimental resources it turned into an observational tool for studying the properties of the self-gravitating systems in the strong field regime.
In this talk we will explain the theoretical foundations of the phenomenon, describing the physical mechanism of the shadow formation. We will further discuss what information about the black hole properties is encoded in the shadow image and how it can be extracted. In general, shadow can be cast not only by black holes, but also by other compact objects with a sufficiently strong gravitational field. We will give examples of such objects possessing no event horizon and discuss whether they can be differentiated from the black holes based only on their shadow images.

Interessierte sind herzlich eingeladen.

gez. Prof. Dr. Jutta Kunz