



# PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik  
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 28.06.2017, 16 Uhr c.t.  
Otto-Stern-Zentrum (IZR) - OSZ H2 (Hörsaal),  
Ruth-Moufang-Str. 2



**Dr. Alex Nielsen**

Albert-Einstein-Institut,  
Max-Planck-Institut für Gravitationsphysik,  
Leibniz Universität Hannover

Memorial Colloquium to honor  
Walter Greiner

*"Gravitational wave astronomy"*

Gravitational waves have now been detected by the Advanced LIGO detectors. This opens up a new observational window onto many phenomena not previously visible. The collisions of black holes provide ideal laboratories for testing ideas about the behaviour of strong gravitational fields and the nature of black holes. The first observations also begin to constrain formation models of black hole binaries and their properties. Gravitational waves have the potential to detect far more than just black holes. As this new field opens up, I will provide a review of the basic physics and observational techniques employed, discuss some of the latest results and provide a glimpse into what the future of the field of gravitational wave astronomy may bring.

Die Dozenten der Physik

local host: Prof. Dr. Carsten Greiner, [carsten.greiner@th.physik.uni-frankfurt.de](mailto:carsten.greiner@th.physik.uni-frankfurt.de)

You are cordially invited to the reception at the Otto-Stern-Zentrum that will follow the Memorial Colloquium