

# DIESE WOCHE

## PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik  
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 28.05.2014, 16 Uhr c.t.  
Großer Hörsaal, Raum \_0.111,  
Max-von-Laue-Str. 1

**Prof. Dr. Luciano Rezzolla**

Institute for Theoretical Physics, Frankfurt  
Max-Planck Institute for Gravitational Physics, Potsdam

## Antrittsvorlesung

*„The unbearable attraction of gravity“*

The allusive title is to embody the deep fascination that gravity exerts on us both as human beings and as physicists through one of the most beautiful mathematical theories: general relativity. Despite its beauty this theory has always resisted analytical exploration of its most interesting regimes. I will review the considerable progress made recently in the numerical description of the dynamics of astrophysical compact objects such as black holes and neutron stars. I will also discuss how these studies have a profound impact in the detection of gravitational-waves, in explaining some of the most catastrophic astrophysical events, but also in deepening our understanding of gravity in highly dynamical and nonlinear regimes.

Die Dozenten der Physik

# Kolloquium