



# ***EINLADUNG***

im Rahmen des Seminars für Mathematische Physik  
sowie der Teilchenphysik und der Gravitationsphysik  
**(Joint TU/UV Theory Seminar)**

zum Vortrag  
von

**Prof. Thibault Damour**  
(IHES - Institut des Hautes Etudes Scientifiques)

über

***„Black Hole Binary Dynamics from Classical  
and Quantum Gravitational Scattering“***

**Abstract:**

Gravitational wave signals from coalescing binary black holes are detected, and analyzed, by using large banks of template waveforms.

The construction of these templates makes an essential use of the analytical knowledge of the motion and radiation of gravitationally interacting binary systems.

A new angle of attack on gravitational dynamics consists of considering (classical or quantum) scattering states.

Modern amplitude techniques have recently given interesting novel results.

These results are reaching a level where subtle conceptual issues arise (quantum-classical transition, radiative effects versus conservative dynamics, massless limit,...)

**Zeit:** Dienstag, 17.10.2023, 14.00 h

**Ort:** Erwin-Schrödinger-Hörsaal, Fakultät für Physik, Boltzmanngasse 5, 5. Stock

gez.: S. Fredenhagen, A. Hoang, P. Chrusciel, D. Grumiller, T. Tran, A. Fiorucci