

Physikalisches Kolloquium Universität Kiel Sommersemester 2016

Dienstag, 28. Juni 2016

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Quantum Einstein Equations in Loop Quantum Gravity

Loop quantum gravity is a candidate for a theory of quantum gravity which takes general relativity as its classical starting point. The quantum theory is obtained by applying canonical quantization to general relativity. For this purpose, the techniques known from quantum field theory need to be generalized. As a consequence, loop quantum gravity is based on a quantum field theory, which is in many aspects different from the quantum field theory, that is used to formulate the Standard Model of particle physics. The dynamics of the quantum theory is described by the so called quantum Einstein equations, the quantum analog of Einstein's equations. After a brief introduction to the ideas and concepts of loop quantum gravity, we will discuss the current status of the dynamics and also present further research directions currently addressed in loop quantum gravity.

Der Vortrag beginnt um **12:15 Uhr** im Max-Planck-Hörsaal (LS13-R.8) des Physikzentrums.

Ab **12:00 Uhr** werden **Kaffee** und **Tee** angeboten.

B. Heber
für die Dozenten der Physik

Gastgeber: Dr. Sönke Harm