

## GR 27: Quantum Gravity and Quantum Cosmology II

Time: Friday 11:30–12:10

Location: SPA SR220

GR 27.1 Fri 11:30 SPA SR220

**Die Gravitation, die Entropie und die dunkle Materie** —  
 ●NORBERT SADLER — Wasserburger Str, 25a ; 85540 Haar

Die Gravitation kann als die Entropie des makroskopischen, linearen Energiedichte-Zustandes,  $E(1\text{kg}/1\text{m} \times c^{**2})$ , verstanden werden. Die mikroskopischen Energiedichte-Zustände der mittleren, linearen Materiedichte des Universums,  $E(4/9\text{Prot}/1\text{m} \times c^{**2})$ , sind als die gravitativen Feldquanten des Universums zu betrachten.

Durch lineare, spontane Spiegelungen der mikroskopischen Feldquanten über den Radius des Universums bzw. an dem 57-dimensionalen Objekt der E8-Gruppe wird die Entropie des makroskopischen Energiedichte-Zustandes identifiziert, und ist in der Größe emergent zu den 23.9% dunkler Materie.

Die gravitativen-,entropischen Energie-Zustände des Universums:

Allgemein: Betrag  $R(\text{Univ.}) \times (1\text{Proton}/1\text{m}) = (0.239) \times (1\text{kg}/1\text{m})$

Die E8-Grp.:  $57 \times ((e^{**57}) \times 4/9\text{Prot.}/1\text{mxc}^{**2}) = (0.239) \times (1\text{kg}/1\text{mxc}^{**2})$

PL-Metrik:  $248 \times ((57)^{**3} \times (m(\text{Pl.}/1\text{m})/xc^{**2})) = (0.239) \times (1\text{kg}/1\text{mxc}^{**2})$

Dunkle Materie:  $(0.239) = (e^{**0.0458}) \times 57/248$

Dunkle Energie:  $(0.705) \times 1\text{GeV} = (e^{**-0.288}) \times (1\text{Prot.} \cdot 0.938\text{GeV})$

alfa(vereinheitl.) =  $(32 \times 4/3) \times \text{Betrag}(\text{Pl.-Zeit}) = 2.29 \times 10^{**-42}$

Weitere Information: [www.cosmology-harmonices-mundi.com](http://www.cosmology-harmonices-mundi.com)

GR 27.2 Fri 11:50 SPA SR220

**Is Our Universe Finite? New Physics by Dark Matter. On Hike through Black, White, and Worm Holes** — ●CLAUS BIRKHOLZ — D-10117 Berlin, Seydelstr. 7

Quantum Gravity (QG) allows finite-dimensional representations for its particles without getting into the traditional trouble with probability conservation. As in QG a particle and a universe are described by identical equations, our universe is expected to be finite, as well.

Within a finite universe, not only space-time is limited, but there also must exist upper bounds for energy-momentum: A particle cannot be accelerated up to arbitrary energy.

By erasing major inconsistencies in quantum field theories, their current types are proved to systematically destroying structure of our universe, which, thus, must be much greater than officially assumed. The key is traced back to Dark Matter.

Black Holes are argued to be "particle vertices" with respect to our universe, while "White Holes", here, are not yet identified. The intermediary exchange state between such a related pair, by GR is represented as a "Worm Hole".

For more information on QG and GUT see [www.q-grav.com](http://www.q-grav.com)