DESY Seminar 27 October 2004, 17:00 Seminar room 4b

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The quantization of time in extremely small intervals

We study the properties of the time of the special solution of Einstein's equations in general relativity. We demonstrate mathematically that the time in extremely small intervals is quantized and unhomogeneous. It means that the energy conservation law was violated in the very short intervals . Then we prove the existence of pairs of virtual particle- antiparticle pairs on extremely small scales . They introduce an unavoidable factor of unpredictability and randomness into general relativity. Finally, we obtain the uncertainly relation for energy and Heisenberg's uncertain relation in quantum mechanics.

- Tea and cookies will be served at 16:45 in the lobby.
- After the seminar there is a chance for private discussions with the speaker over wine and pretzels also in the lobby.