

Relativistic Diffusion in Gödel's Universe
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K.Gödel published his exact solution to Einstein's field equations in 1949. On the other hand, a general Lorentz invariant operator, associated to a so-called "relativistic diffusion, and making sense in any Lorentz manifold, was defined recently by Y. Le Jan and myself. I shall expound a study of the relativistic diffusion in the framework of Gödel's universe, which contains matter and is non-causal.