

General Mathematics Seminar
of the
University of Luxembourg
in cooperation with the
Luxembourg Mathematical Society

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Campus Kirchberg, Room B02

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Non-explosion criteria for relativistic diffusions

Abstract:

Relativistic diffusions live on the unit tangent bundle of a given Lorentz manifold, and have their law invariant with respect to the isometries of this Lorentz manifold. In the Riemannian setting a big amount of work has been made to find out nice conditions ensuring the non-explosion of Brownian motion, that is, the so-called stochastic completeness. The aim is here to provide analogous criteria in the Lorentzian case, which is really more difficult to handle.