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Heat semigroup on a complete Riemannian manifold. (English) Zbl 0694.58043
Ann. Probab. 17, No. 3, 1248-1254 (1989).

Let M be a complete Riemannian manifold and $p(t,x,y)$ the minimal heat kernel on M . Let P_t be the associated semigroup. The stochastic completeness ($\int_M p(t,x,y)dy = 1, t > 0$) and a C_0 -diffusion property ($P_t f$ vanishes at infinity for all $t > 0$ whenever f does) are investigated.

Reviewer: [S.Eloshvili](#)

MSC:

- [58J65](#) Diffusion processes and stochastic analysis on manifolds
- [60J60](#) Diffusion processes
- [60J65](#) Brownian motion
- [58J35](#) Heat and other parabolic equation methods for PDEs on manifolds
- [53C20](#) Global Riemannian geometry, including pinching

Cited in **31** Documents

Keywords:

[Brownian motion](#); [Riemannian manifold](#); [\$C_0\$ -diffusion](#)

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