

Picard, Jean

Barycenters and martingales on a manifold. (Barycentres et martingales sur une variété.)
(French) [Zbl 0817.58047](#)

Ann. Inst. Henri Poincaré, Probab. Stat. 30, No. 4, 647-702 (1994).

Author's abstract: "On a manifold V , we consider a family of V -valued maps, called barycentres, defined on the set of probability measures on V . For each barycentre we define the class of martingales on V as the set of V -valued semimartingales with jumps which satisfy a condition involving the barycentre; this notion extends the notion of continuous martingales defined by means of the second order differential geometry. We give several equivalent characterizations and prove that under assumptions, there exists one and only one martingale with prescribed final value".

Reviewer: S.Eloshvili (Tbilisi)

MSC:

[58J65](#) Diffusion processes and stochastic analysis on manifolds
[60G48](#) Generalizations of martingales

Cited in **16** Documents

Keywords:

Riemannian manifold; semimartingale; barycentres; martingales

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