1116-58-1254   **Fabrice Baudoin*** (`fbaudoin@purdue.edu`), 150 N. University street, West Lafayette, IN 47906.
Stochastic analysis on sub-Riemannian manifolds.

We develop a Malliavin calculus on the horizontal path space over a foliated Riemannian manifold. This calculus is used to prove logarithmic Sobolev inequalities under curvature conditions and concentration inequalities for the horizontal Brownian motion of the foliation. (Received September 18, 2015)