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Thomas A Laetsch* (thomas.laetsch@uconn.edu), Department of Mathematics, University of Connecticut, Unit 3009, Storrs, CT 06269. *Questions in stochastic sub-Riemannian geometry.*

A sub-Riemannian manifold M is a connected smooth manifold such that the only smooth curves in M which are admissible are those whose tangent vectors at any point are restricted to a subset $\mathcal{H} \subset TM$, called the *horizontal distribution*. Such spaces have several applications in physics and engineering, as well as in the study of sub-elliptic and hypo-elliptic operators. We will be interested in the *hypo-elliptic Laplacian* and the trouble with defining one which is canonical. (Received January 27, 2014)