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**Masanori Hino\***, Kyoto University, Kyoto, 606-8501, Japan. *Differential-like structures associated with strong local Dirichlet forms.*

On a certain class of self-similar fractals, it has been observed already by S. Kusuoka and J. Kigami around 1990 that differential-like structures are associated with self-similar Dirichlet forms. In this report, I will discuss similar structures with respect to strong local Dirichlet forms on general state spaces and the first-order Taylor expansion of functions in the domain of the Dirichlet form. (Received June 27, 2011)