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Dong Hyun Cho* (j94385@kyonggi.ac.kr), Department of Mathematics, Kyonggi University, Suwon, Kyonggido 16227, South Korea. *A simple evaluation formula for Radon-Nikodym derivatives over paths.*

Let $C[0, T]$ denote an analogue of Wiener space, the space of real-valued continuous functions on the interval $[0, T]$ and let $0 = t_0 < t_1 < \cdots < t_n < T$ be a partition of $[0, T]$. Define $X_n : C[0, T] \rightarrow \mathbb{R}^{n+1}$ by $X_n(x) = (x(t_0), x(t_1), \dots, x(t_n))$. In this talk we introduce a simple evaluation formula for Radon-Nikodym derivatives similar to conditional expectations of functions on $C[0, T]$ with the conditioning function X_n which has a drift and an initial weight. As applications of the evaluation formula, we establish the Radon-Nikodym derivatives similar to the conditional expectations of the functions given by $\int_0^T [x(t)]^m d\lambda(t)$ ($m \in \mathbb{N}$) and $[\int_0^T x(t) d\lambda(t)]^2$ on $C[0, T]$, where λ is a complex-valued Borel measure on $[0, T]$. (Received January 07, 2019)