

SEQUENTIAL YEH-FEYNMAN INTEGRALS AND TRUMAN INTEGRALS

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Recently Cameron and Storvick introduced the concepts of the sequential Feynman integral by means of finite dimensional approximations. More earlier Truman dealt with the Feynman path integral with complex parameter.

The purpose of this paper is to extend the sequential Feynman integral and the Truman integral on Wiener space to the sequential Yeh-Feynman integral and the Truman integral on Yeh-Wiener space, respectively, and to establish the relationship between the sequential Yeh-Feynman integral and the Truman integral on Yeh-Wiener space. We get the result that the sequential Yeh-Wiener integral of some functionals and the Truman integral of those are same. Furthermore, we verify that the sequential Yeh-Feynman integral is equivalent to the Truman integral on Yeh-Wiener space with real parameter. Finally we show that the Truman integral in the extended sense has the same value as the sequential Yeh-Feynman integral of functionals in a Banach algebra S^* .

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