

Gelfand - Yaglom equation for Wiener functional integral with fourth order term

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We present the proof of the Gelfand - Yaglom type equation for Wiener unconditional measure functional integral with x^4 term. For anharmonic oscillator we obtained the correction term $4[\partial_\mu \ln(S(a, b, c, \tau))]^2$ for Gelfand - Yaglom equation for harmonic oscillator. Evaluation of the function $S(a, b, c, \tau)$ is briefly reported. It would be desirable to recover such equation using more general arguments, and to see its form for some more general classes of potentials.