



FYZIKÁLNY ÚSTAV SAV

Oddelenie komplexných fyzikálnych systémov

Dúbravská cesta 9, 845 11 Bratislava

SEMINÁR

Juraj Boháčik
(FÚ SAV)

The Propagator for An-harmonic Oscillator, or how to evaluate path integral with time-dependent mass, frequency, and an-harmonicity parameters analytically.

Abstrakt

A time-sliced method of evaluation of the "conditional Wiener measure path integral." is presented. Within calculations, we used only one approximation. We present the result as the product of the harmonic and the an-harmonic parts. The harmonic part is in correspondence with the results of the harmonic oscillator evaluations. By the introduction of some operators, we summed an infinite series for the an-harmonic part and presented it as the operator function. Such methods of summations are known as "umbral calculus."

16. december 2019 (pondelok), 14:00 hod.,
FÚ SAV, 2. posch., miest. č. 295