

## Mathematical Physics

# The path integral representation kernel of evolution operator in Merton-Garman model

L. F. Blazhyevskiy, V. S. Yanishevsky

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In the framework of path integral the evolution operator kernel for the Merton-Garman Hamiltonian is constructed. Based on this kernel option formula is obtained, which generalizes the well-known Black-Scholes result. Possible approximation numerical schemes for path integral calculations are proposed.

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