

Analele Universității București, Matematică
Anul LIII(2004), pp. 277–288

Fermion Stochastic Integrals of Continuous Processes

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September 10, 1998

Abstract - We construct a stochastic integral on Fermion Fock space by analogy with the same kind of integral on Boson Fock space, in two steps: first for simple processes and second for continuous processes. Because of the noncommutativity relation, the appropriate theory of stochastic integration must distinguish between the left and right integral. We have for such possibilities.

Key words and phrases : Fock space, filtration, adapted process, Itô formula, Gronwall's lemma, creation operator, annihilation operator

Mathematics Subject Classification (2000) : 60H05, 60J60