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CONSTRUCTING MULTIPLE STOCHASTIC INTEGRALS ON NON-GAUSSIAN PRODUCT MEASURES

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We study a construction of multiple stochastic integrals of nonrandom functions with respect to the product measures generated by stochastic processes admitting representations as multiple orthogonal random series. This construction is compared with some classical schemes of constructing stochastic integrals of such a kind.

Key words and phrases: multiple stochastic integral, multiple orthogonal series, Hilbert-space-valued stochastic process, expansions of stochastic processes via orthogonal series.

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