

BOUNDEDNESS OF SET-VALUED STOCHASTIC INTEGRALS

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Abstract

The paper deals with integrably boundedness of Itô set-valued stochastic integrals defined by E.J. Jung and J.H. Kim in the paper [4], where has not been proved that this integral is integrably bounded. The problem of integrably boundedness of the above set-valued stochastic integrals has been considered in the paper [7] and the monograph [8], but the problem has not been solved there. The first positive results dealing with this problem due to M. Michta, who showed (see [11]) that there are bounded set-valued \mathbb{F} -nonanticipative mappings having unbounded Itô set-valued stochastic integrals defined by E.J. Jung and J.H. Kim. The present paper contains some new conditions implying unboundedness of the above type set-valued stochastic integrals.

Keywords: set-valued mapping, Itô set-valued integral, set-valued stochastic process, integrably boundedness of set-valued integral.

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