

A Converse Comparison Theorem for BSDEs and Related Properties of g -Expectation

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Abstract

In [1], Z. Chen proved that, if for each terminal condition ξ , the solution of the BSDE associated to the standard parameter (ξ, g_1) is equal at time $t=0$ to the solution of the BSDE associated to (ξ, g_2) then we must have $g_1 \equiv g_2$. This result yields a natural question: what happens in the case of an inequality in place of an equality? In this paper, we try to investigate this question and we prove some properties of "g-expectation", notion introduced by S. Peng in [8].

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