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学术论文

保险赔付中的最优对冲策略

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摘要 本文对带有付费过程A_t的保险公司在金融市场(S_t,Q_t,B_t)上通过购买股票S_t、兑换外币Q_t以及购买无风险资产B_t的投资过程而采取的最优投资策略, 使保险公司所面临的风险最小进行探讨. 利用Galtchouk-Kunita-Watanabe分解定理将风险表达式重新表达, 从而找到保险公司所能采取的风险最小的最优对冲策略. 文中举出一个具有现实性意义的例子将文章的重要结论加以应用, 使本文更具有应用价值.

关键词 Galtchouk-Kunita-Watanabe分解定理, Girsanov定理, 最优对冲策略, 付费过程, 具有保证的单位联结保险合同.

分类号

The Hedging Strategies of Optimization in Insurance Payment Processes

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Abstract In this paper we discuss the insurance companies with payment process A_t hedge their risk to the level of minimax by buying stocks S_t, exchanging foreign -- currency Q_t and buying risk -- free asset B_t in the financial market (S_t,Q_t,B_t). In virtue of Galtchouk-Kunita-Watanabe Decomposition Theorem, the expression of risk is expressed over again. Then we get the hedging strategies of optimization with minimal risk. It gives out a realistic example to apply the important conclusion in this paper, which makes this paper to be more practical.

Key words Galtchouk-Kunita-Watanabe Decomposition Theorem, Girsanov Theorem, the hedging strategies of optimization, payment processes, unit-linked insurance contracts with guarantee.

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