吉林大学学报(理学版) 2012, 50(02) 173-178 DOI: ISSN: 0412-1961 CN: 21-1139/TG

数学

Markov链利率下相依风险模型破产概率的上界

程建华, 王德辉

吉林大学 数学学院, 长春 130012

摘要:

考虑一类离散时间风险模型的破产问题. 模型中假设保费过程和理赔过程都具有一阶自回归结构(AR(1)), 并且利率过程是取值于可数状态空间的齐次Markov链. 针对保费在期初收取和期末收取两种不同的情况, 用鞅方法得到了其各自破产概率的上界.

关键词: 相依风险 Markov链利率 离散时间风险模型 破产概率

Upper Bounds for Ruin Probabilities in Dependent Risk Model with Markov Chain Interest Rate

CHENG Jian hua, WANG De hui

College of Mathematics, Jilin University, Changchun 130012, China

Abstract:

We considered ruin problems for a class of discrete time risk model. In this model, the interest rates follow a Markov chain with a denumerable state space, and both the premiums and claims are assumed to have dependent AR(1) structures. Using martingale approach, we derived the upper bounds for ruin probabilities of the models, in which the premiums are received at the beginning of each period and at the end of each period, respectively. We also discussed their applications.

Keywords: dependent risk Markov chian interest rate discrete time risk model ruin probability

收稿日期 2011-08-22 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者: 王德辉

作者简介:

作者Email: wangdh@jlu.edu.cn

参考文献:

本刊中的类似文章

文章评论

反馈人		邮箱地址	
反馈标		验证码	4136

题			