

*For favour of posting*

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE  
THE UNIVERSITY OF HONG KONG

Seminar for Confirmation of Candidature

**Ms. QI Xiaozhen**

*Department of Statistics and Actuarial Science  
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will give a talk

entitled

**ANALYSIS OF THE GENERALIZED GERBER-SHIU  
FUNCTION IN DISCRETE-TIME DEPENDENT SPARRE  
ANDERSEN MODEL**

Abstract

The generalized Gerber-Shiu (G-S) function (Cheung et al. (2010b)) in a discrete-time dependent Sparre Andersen (SA) renewal risk model is studied. Some defective discounted probability functions involving the surplus before ruin, deficit at ruin, the minimum level of surplus before ruin and the surplus immediately after the second last claim before ruin, are derived. Furthermore, with arbitrary distributional assumption on the interclaim times, the generalized G-S function is analyzed when the distribution for the claim sizes is geometric and mixed-geometric in case of time-independent claims. Later, discrete Coxian distribution for the interclaim times is assumed under the certain dependent structure between the interclaim times and the claim sizes, and some numerical illustrations are provided. Lastly, discrete-time delayed SA renewal risk model is considered.

on

**Friday, August 29, 2014**

**12:00 noon – 1:00 p.m.**

at

**Room 301, Run Run Shaw Building**

All interested are welcome