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An extension to the renewal theorem and an application to risk theory. (English)

Zbl 0876.60072

Ann. Appl. Probab. 7, No. 1, 121-133 (1997).

Summary: In applied probability one is often interested in the asymptotic behavior of a certain quantity. If a regenerative phenomenon can be imbedded, then one has the problem that the event of interest may have occurred but cannot be observed at the renewal points. An extension to the renewal theorem is proved which shows that the quantity of interest converges. As an illustration an open problem in risk theory is solved.

MSC:

60K05 Renewal theory

60F10 Large deviations

62P05 Applications of statistics to actuarial sciences and financial mathematics

Cited in **2** Reviews
Cited in **8** Documents

Keywords:

renewal theorem; limit theorems; large deviations; risk theory; ruin probabilities

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