

# 目录

## 1 Test1

PROBLEM I  $\{\xi_n : n \geq 1\}$  are a sequence of i.i.d. r.v. with distribution  $Exp(\alpha)$ , Assume  $S_n = \sum_{m=1}^n \xi_m$ . Let  $N_t = \sum_{n=1}^{\infty} \mathbb{1}_{S_n \leq t}$ ,  $X_t = \sum_{n=1}^{\infty} \mathbb{1}_{S_n < t}$ . Find the distribution of  $N_t, X_t$ . Then prove that  $N_t$  is 左极右连, 随机右连续,  $X_t$  是右极左连, 随机左连续。  $N_t, X_t$  是互为修正但不是无差别。 PROBLEM II