

3rd exercises for SIM'2021

Ex. 1

We have 10 observations from i.i.d. Poisson model and $\bar{y} = 2.5$. Construct 95 % confidence interval for λ using asymptotic result in Eq. (2.7).

Ex. 2

We have two sets of stars, A and B, and we have observed their magnitudes. In set A we have 62 observations with mean magnitude -23.4 , standard deviation is 3.9 . In set B there are 72 observations, mean magnitude is -22.2 and standard deviation is 3.8 . Test if the expected magnitudes could be the same in the groups.

Ex. 3

Test if hair color and color of eyes are independent. The data from 95 persons is

hair \ eyes	blue	brown	other
blonde	31	14	7
dark	12	21	10