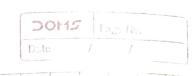
AKSHIT SINGH 30027 102103767



PARAMETER ESTIMATION

Random sample (X, X2, X3, ... Xn) 21

N=0,

ez = 0,

[qpalehood for L(0, 02)= 1] - (x, -0,)

take lag

bo la L(0,,02) = € [-1 la (25102) - (20-0,)]

> Differentiate wit O.

 $\frac{d \ln L(0_1, 0_2)}{d} = \frac{\sum_{i=1}^{\infty} \chi_{i_i} - 0_i}{0_2} = 0$ 

me an = 0, = & n:

> Differentiate wit O,

 $\frac{d \cdot \ln L(Q_1, Q_2)}{dQ_2} = \sum_{i=1}^{\infty} \left[ \frac{1}{2Q_1} + (n_1 - Q_1)^2 \right] = 0$ 

20, 70,2 (20, -0.)

0, = 1 & (n, -0,)

Binomial distribution B(n, 0) p = 0, q = 1 - 0

f (x; n, 0) = "Cx Ox (1-0)"- >1

[(0) = 1 " (x 0 0 (1-0) 1- x0,

take lag

In L(0) = 5 [ [ h (x0 + 20 ) h (1-4)]

deff wat o

1 m 10) = 2 [ n; - n-x; ] = 0

BE ((1-0)20; -0 (n-20;) =0

E ((1-0)20 ~ (n-20)0)=0

0 = £ X0 ) MLE