

MLE of Location Parameter of a Cauchy Distribution by Using Different Algorithms

HW 3 of STAT 5361 Statistical Computing

*Biju Wang*¹

09/17/2018

¹bijuwang@uconn.edu

Contents

1	Proofs and Loglikelihood Function Plot against θ	5
1.1	Proofs	5
1.2	Loglikelihood Function Plot against θ	5
2	Newton-Raphson Method	7
3	Fixed-Point Iterations	9
4	Fisher Scoring Method and Newton-Raphson Method	11
5	Comments	13

Chapter 1

Proofs and Loglikelihood Function Plot against θ

1.1 Proofs

1.2 Loglikelihood Function Plot against θ

Chapter 2

Newton-Raphson Method

Chapter 3

Fixed-Point Iterations

Chapter 4

Fisher Scoring Method and Newton-Raphson Method

Chapter 5

Comments