

Presentation

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1 Problem

2 Plot

- Graph

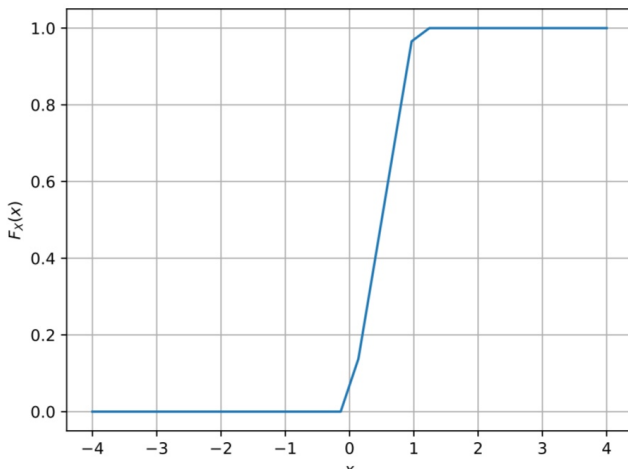
3 Solution

Question

Load the unit.dat file into python and plot the empirical CDF of U using the samples in unit.dat. The CDF is defined as

$$\mathbf{F}_U = \mathbf{Pr}(U \leq x) \quad (2.1)$$

Graph



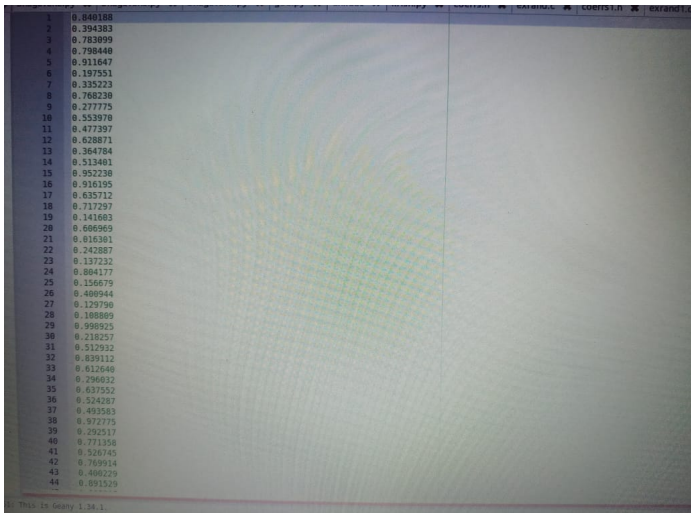
The above graph depicts Cumulative Distribution Function (CDF) of U using the samples in `uni.dat`.

The code for the above graph is in

<https://github.com/smaran43/smaran/blob/master/cdfplot.py>

Samples

The samples in uni.dat are



```
999959 0.945896
999960 0.003314
999961 0.688287
999962 0.758636
999963 0.473599
999964 0.218082
999965 0.727212
999966 0.767456
999967 0.004810
999968 0.520191
999969 0.736181
999970 0.061106
999971 0.847024
999972 0.100857
999973 0.021291
999974 0.344707
999975 0.621534
999976 0.693932
999977 0.668993
999978 0.909223
999979 0.089241
999980 0.924625
999981 0.714098
999982 0.621321
999983 0.118051
999984 0.889166
999985 0.641035
999986 0.786145
999987 0.991441
999988 0.219386
999989 0.386798
999990 0.937337
999991 0.222700
999992 0.075085
999993 0.695973
999994 0.696298
999995 0.293167
999996 0.423185
999997 0.463754
999998 0.297978
999999 0.943376
1000000 0.199935
1000001
```

The code is in

<https://github.com/smaran43/smaran/blob/master/randomvalues.c>