

University of Central Florida
School of Electrical Engineering and Computer Science
EGN-3420 - Engineering Analysis.
Fall 2009 - dcm

Homework 4 due Thursday week 11 (100 points)

Problems 1 (100 points)

Provide the analytical expression of the PDF (probability density function) and the CDF (cumulative distribution function) and plot them using Matlab for the following distributions:

- 'beta' (Beta distribution)
- 'bino' (Binomial distribution)
- 'chi2' (Chi-square distribution)
- 'exp' (Exponential distribution)
- 'ev' (Extreme value distribution)
- 'f' (F distribution)
- 'gam' (Gamma distribution)
- 'gev' (Generalized extreme value distribution)
- 'gp' (Generalized Pareto distribution)
- 'geo' (Geometric distribution)
- 'hyge' (Hypergeometric distribution)
- 'logn' (Lognormal distribution)
- 'nbin' (Negative binomial distribution)
- 'ncf' (Noncentral F distribution)
- 'nct' (Noncentral tdistribution)
- 'ncx2' (Noncentral chi-square distribution)
- 'norm' (Normal distribution)
- 'poiss' (Poisson distribution)
- 'rayl' (Rayleigh distribution)
- 't' (t distribution)
- 'unif' (Uniform distribution)
- 'unid' (Discrete uniform distribution)
- 'wbl' (Weibull distribution)

Provide the formulas for the expectation for these distributions.