

The University of Chicago Department of Statistics

MASTER'S THESIS PRESENTATION

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Department of Statistics The University of Chicago

Rejection Sampling for an Extended Gamma Distribution

MONDAY, February 7, 2011, at 11:00AM

110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

This paper describes a rejection sampling scheme for generating random draws from the distribution with the density:

 $h(t) \propto t^{\alpha-1} \exp(-t - 2\sqrt{t\gamma})I(t>0), \ \alpha \ge 1$

The sampler is particularly efficient for γ of large magnitude, and the acceptance rate is shown to have a limit of 1 when $|\gamma| \to \infty$. And the lowest acceptance rate is above 0.5 for all γ 's and $\alpha \ge 1$.

Information about building access for persons with disabilities may be obtained in advance by calling Sandra Romero at 773.702-0541 or by email (sandra@galton.uchicago.edu).