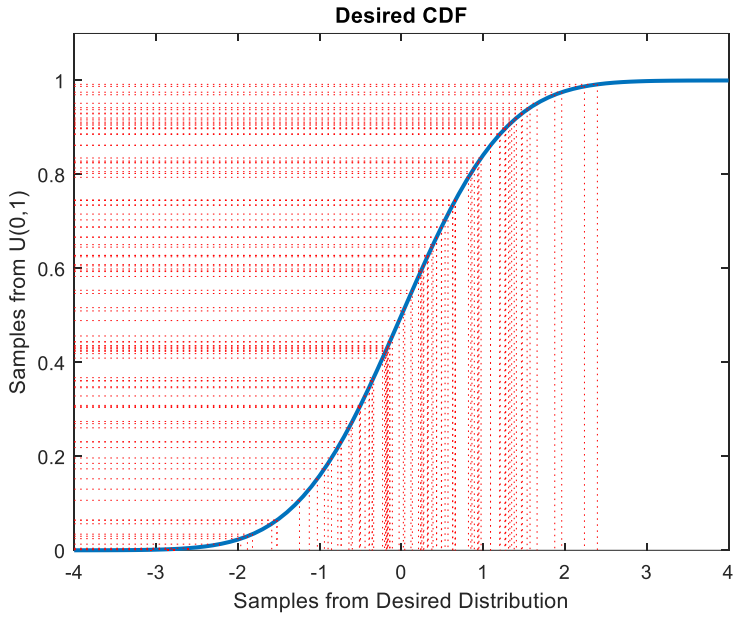
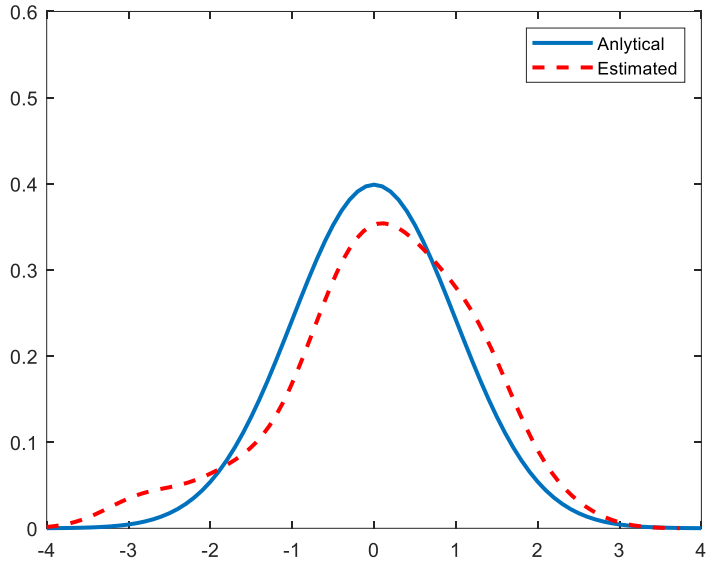
Inverse Transform Sampling
Desired Distribution: Gaussian



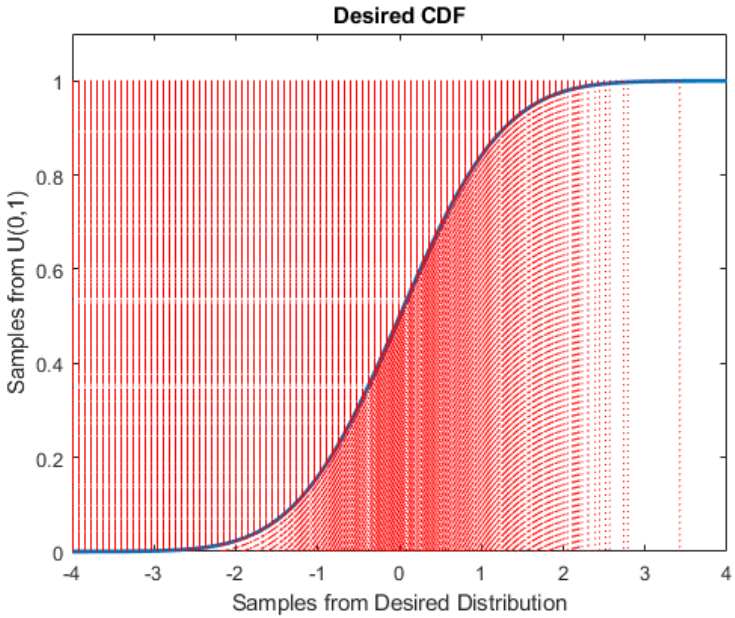


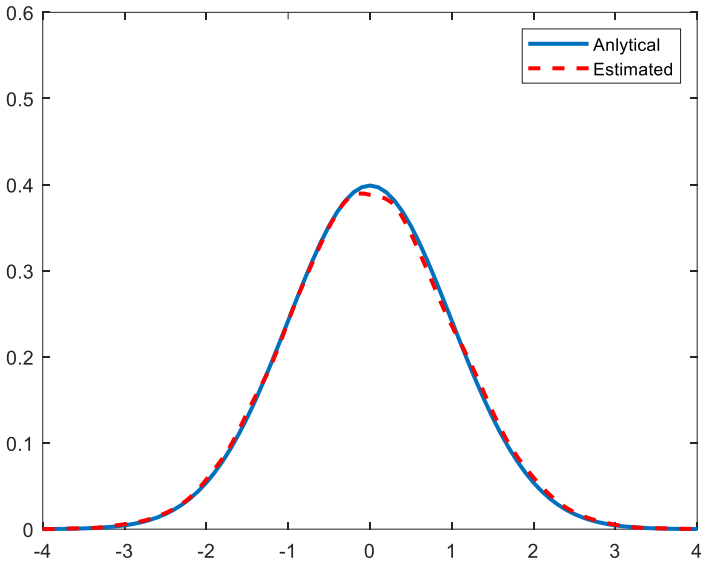
Small number of samples (Ns=1e2).

Probability density function (PDF) is estimated through a kernel smoothing function estimator (ksdensity) from MATLAB.

Textbooks: Fikri Öztürk, Levent Özbek, “Matematiksel Modelleme ve Simülasyon”, 2004.
Averill M. Law, “Simulation Modeling and Analysis”, McGraw-Hill, 2015.

Inverse Transform Sampling
Desired Distribution: Gaussian

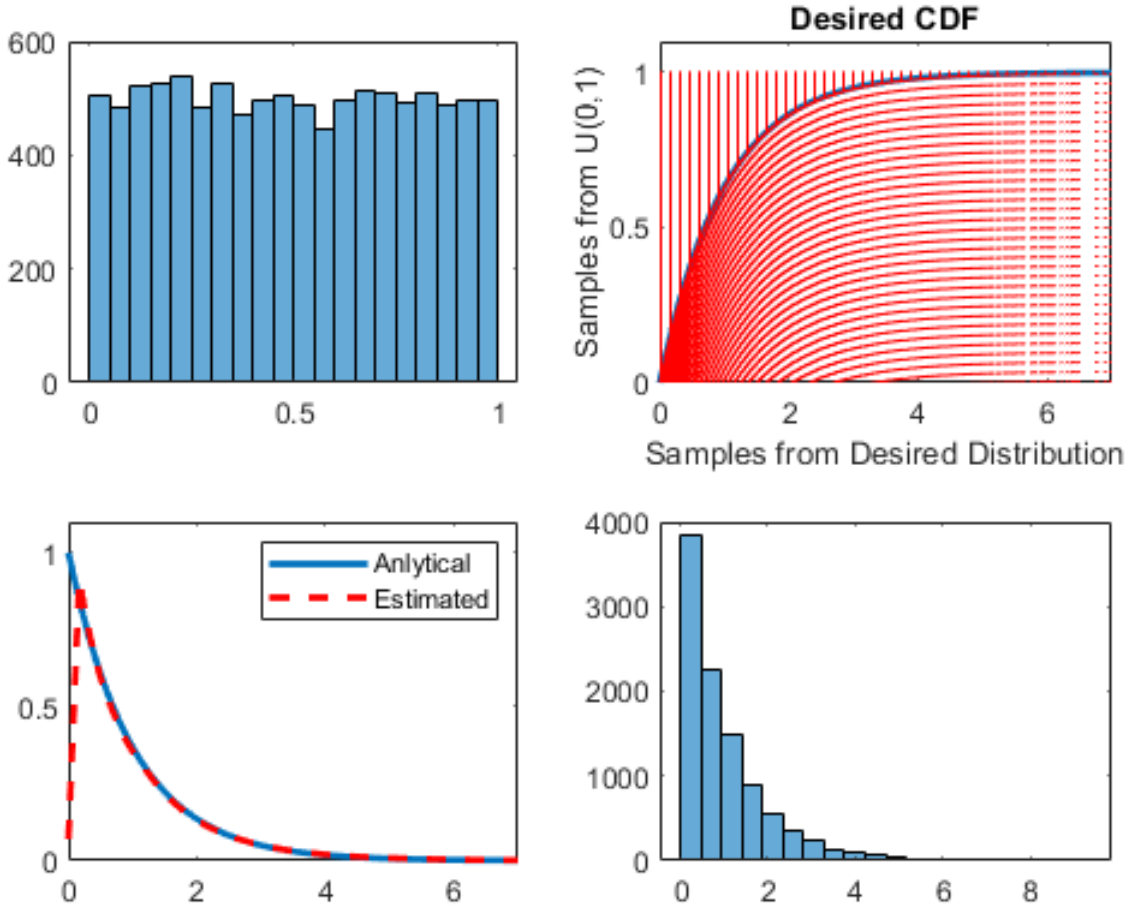




Large number of samples (Ns=1e4)

Textbooks: Fikri Öztürk, Levent Özbek, “Matematiksel Modelleme ve Simülasyon”, 2004.
Averill M. Law, “Simulation Modeling and Analysis”, McGraw-Hill, 2015.

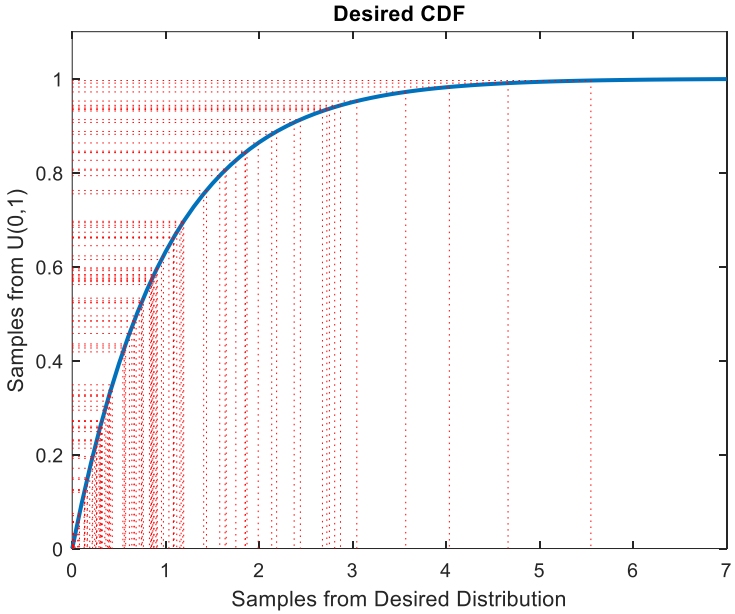
Inverse Transform Sampling
Desired Distribution: Exponential

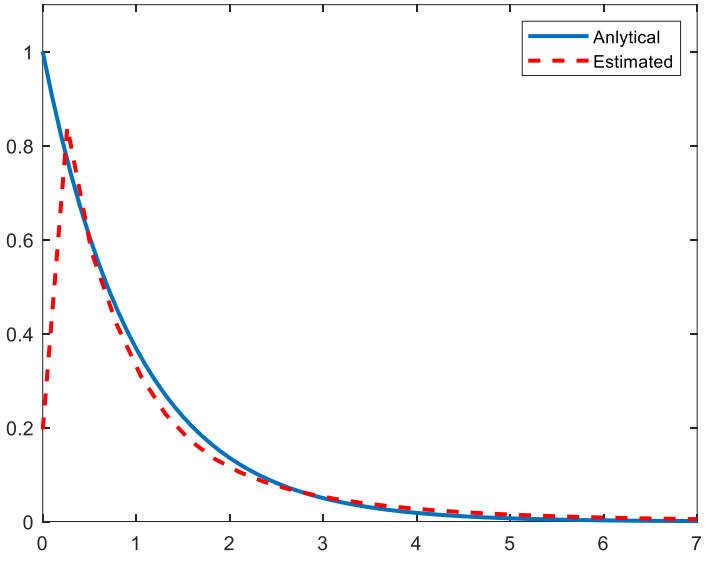


Inverse transform sampling procedure. Number of random samples Ns=1e4

Textbooks: Fikri Öztürk, Levent Özbek, "Matematiksel Modelleme ve Simülasyon", 2004.
Averill M. Law, "Simulation Modeling and Analysis", McGraw-Hill, 2015.

Inverse Transform Sampling
Desired Distribution: Exponential



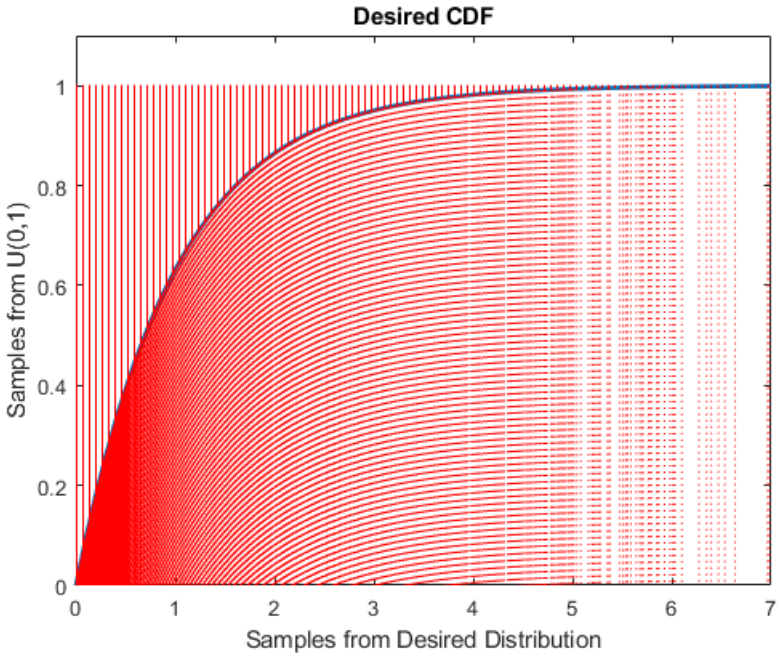


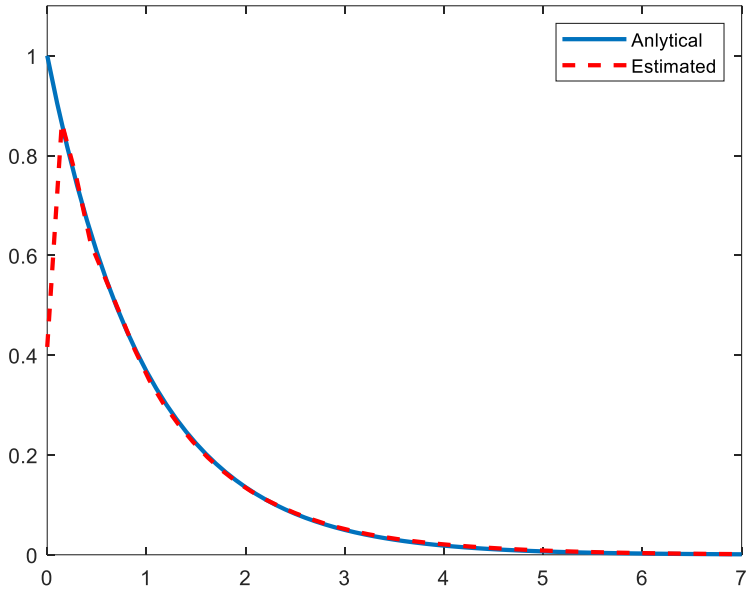
Small number of samples (Ns=1e2).

Probability density function (PDF) is estimated through a kernel smoothing function estimator (ksdensity) from MATLAB.

Textbooks: Fikri Öztürk, Levent Özbek, “Matematiksel Modelleme ve Simülasyon”, 2004.
Averill M. Law, “Simulation Modeling and Analysis”, McGraw-Hill, 2015.

Inverse Transform Sampling
Desired Distribution: Exponential



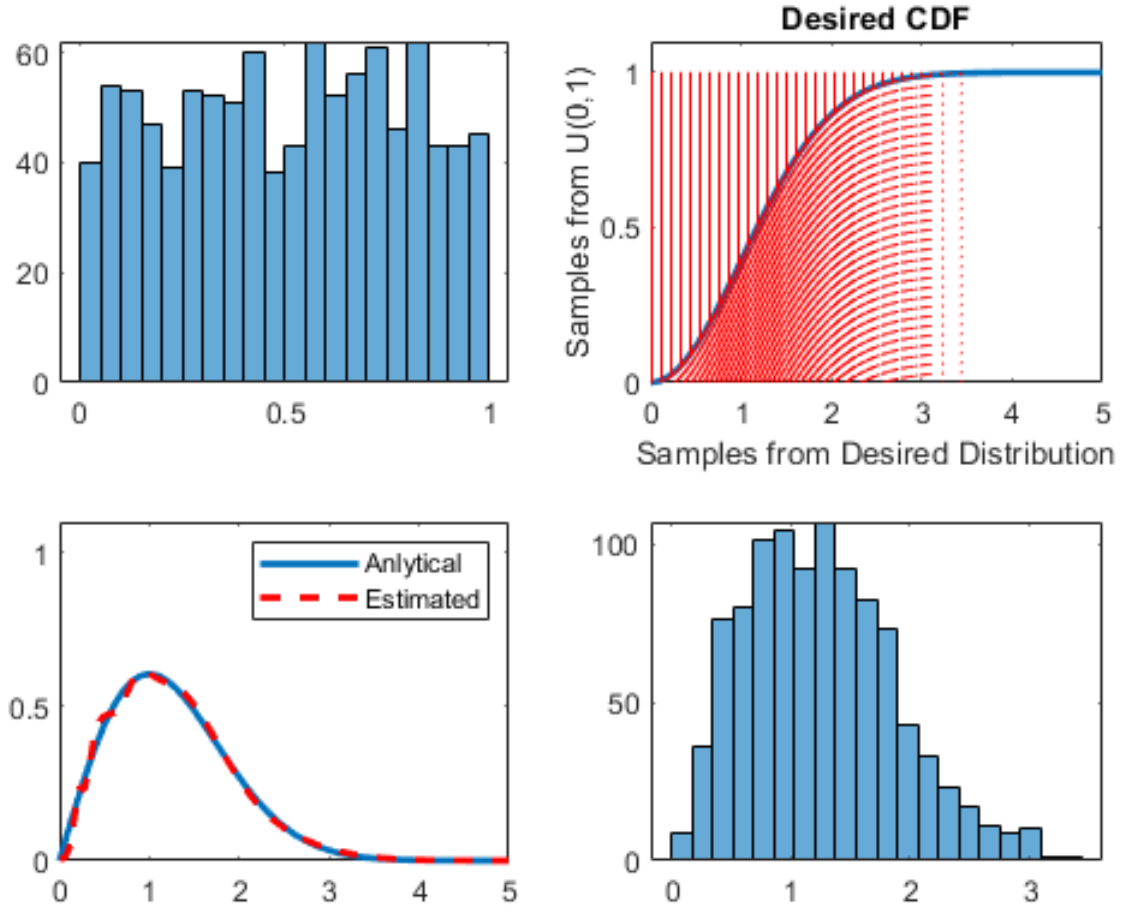


Large number of samples (Ns=1e4)

Note that kernel smoothing density estimation ("ksdensity" function in MATLAB) may not be the best PDF estimator.

Textbooks: Fikri Öztürk, Levent Özbek, "Matematiksel Modelleme ve Simülasyon", 2004.
Averill M. Law, "Simulation Modeling and Analysis", McGraw-Hill, 2015.

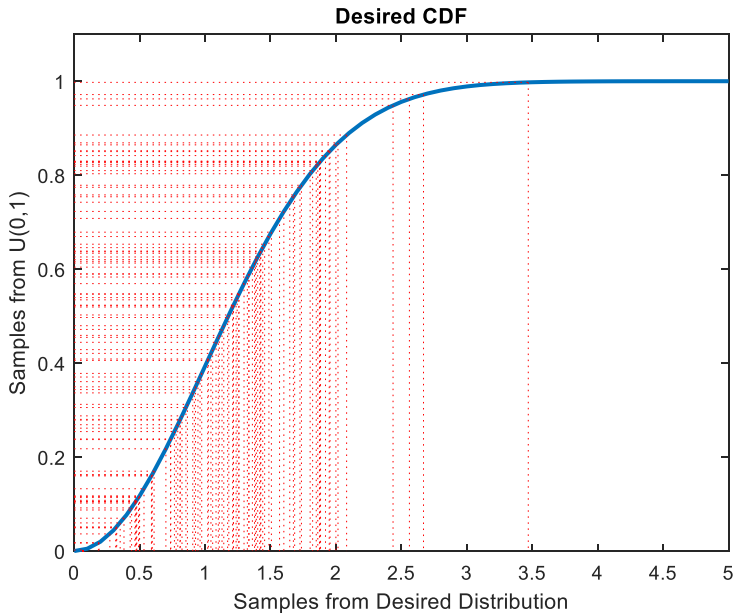
Inverse Transform Sampling
Desired Distribution: Rayleigh

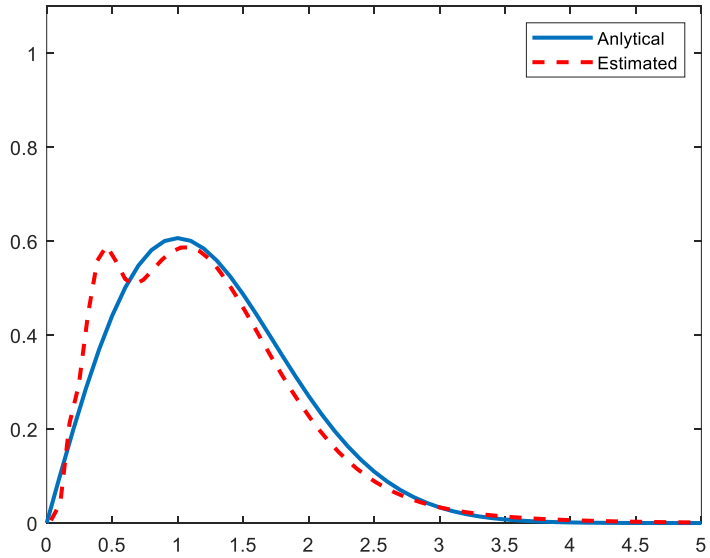


Inverse transform sampling procedure. Number of random samples Ns=1e4

Textbooks: Fikri Öztürk, Levent Özbek, "Matematiksel Modelleme ve Simülasyon", 2004.
Averill M. Law, "Simulation Modeling and Analysis", McGraw-Hill, 2015.

Inverse Transform Sampling
Desired Distribution: Rayleigh



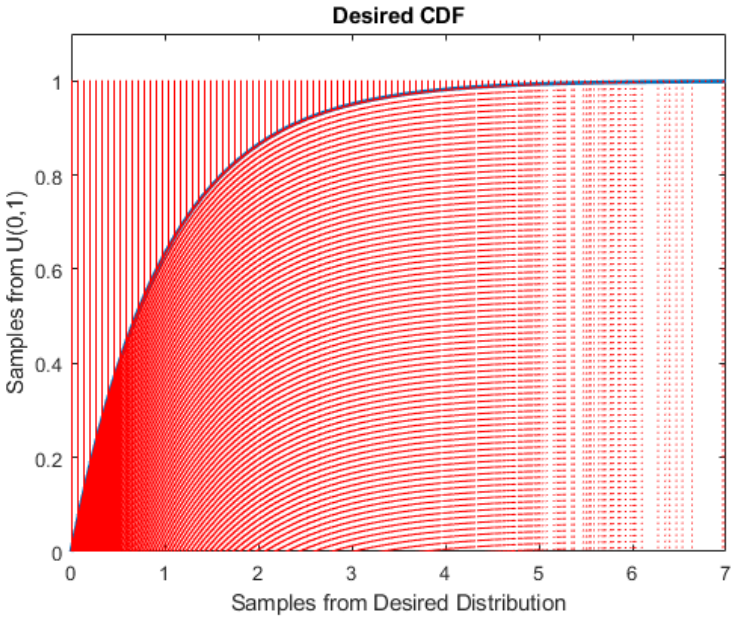


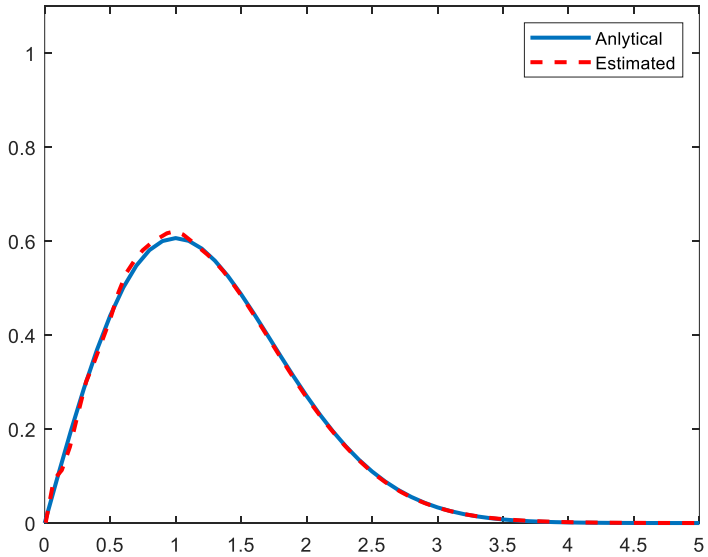
Small number of samples (Ns=1e2).

Probability density function (PDF) is estimated through a kernel smoothing function estimator (ksdensity) from MATLAB.

Textbooks: Fikri Öztürk, Levent Özbek, “Matematiksel Modelleme ve Simülasyon”, 2004.
Averill M. Law, “Simulation Modeling and Analysis”, McGraw-Hill, 2015.

Inverse Transform Sampling
Desired Distribution: Rayleigh





Large number of samples (Ns=1e4)

Textbooks: Fikri Öztürk, Levent Özbek, “Matematiksel Modelleme ve Simülasyon”, 2004.
Averill M. Law, “Simulation Modeling and Analysis”, McGraw-Hill, 2015.