Default Models

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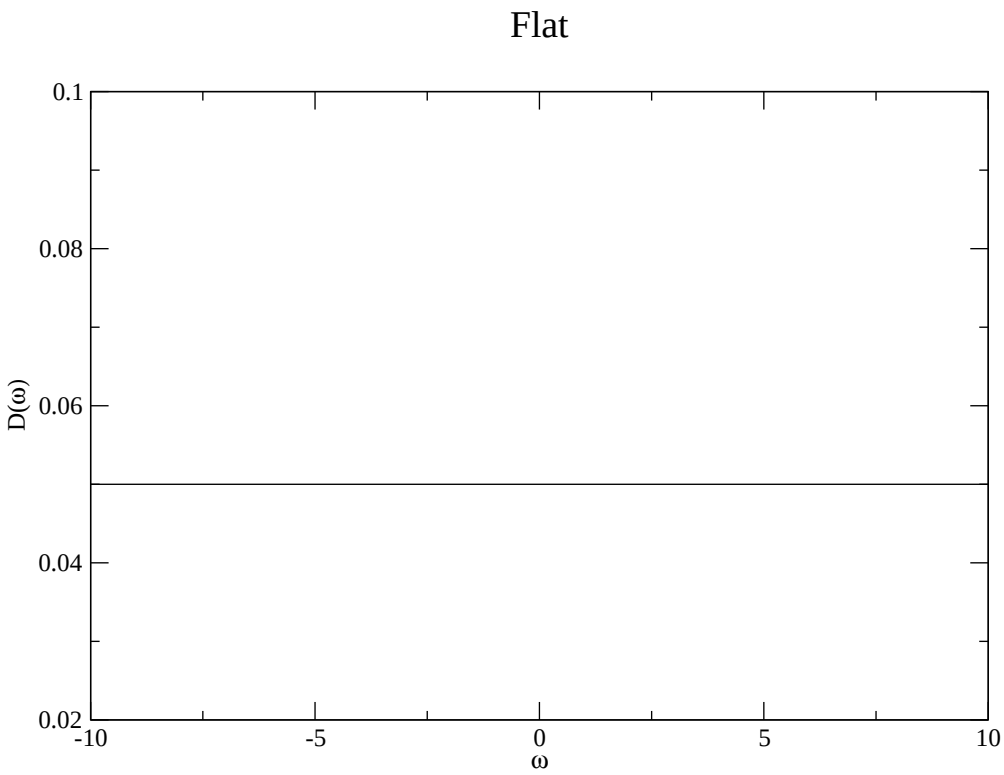
Abstract

The Maxent method uses entropy S of a spectral function $A(\omega)$, defined with respect to an underlying default model $D(\omega)$ such that $S = -\int d\omega A(\omega) \ln \frac{A(\omega)}{D(\omega)}$. This document provides several plots of available default models for use in the Maxent program.

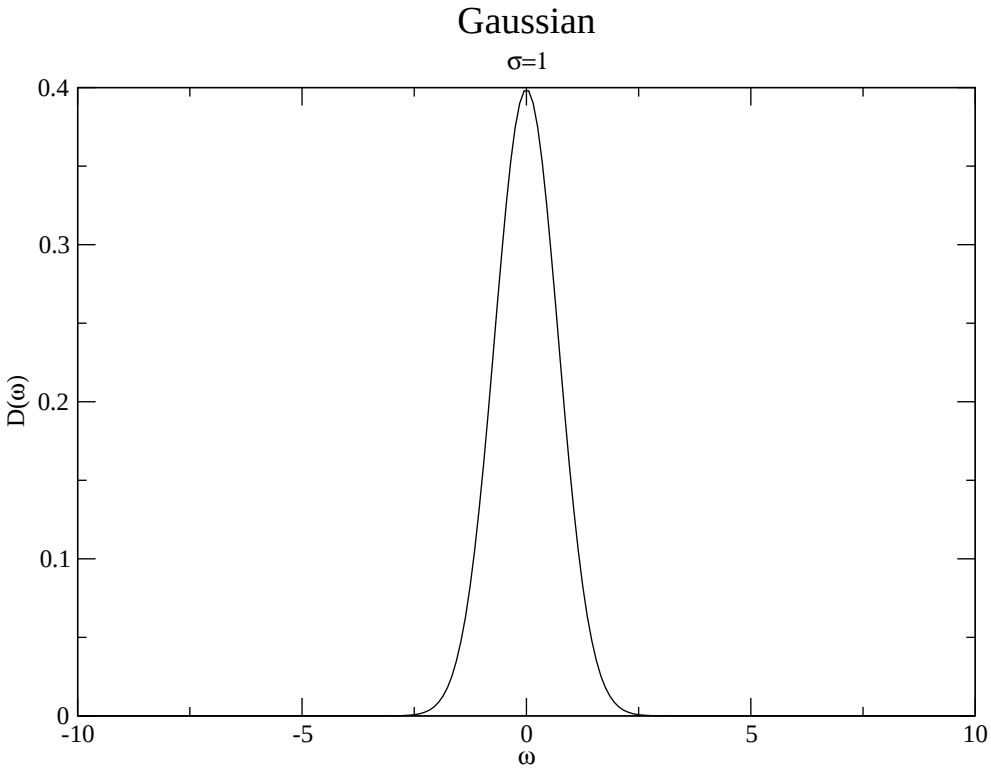
Contents

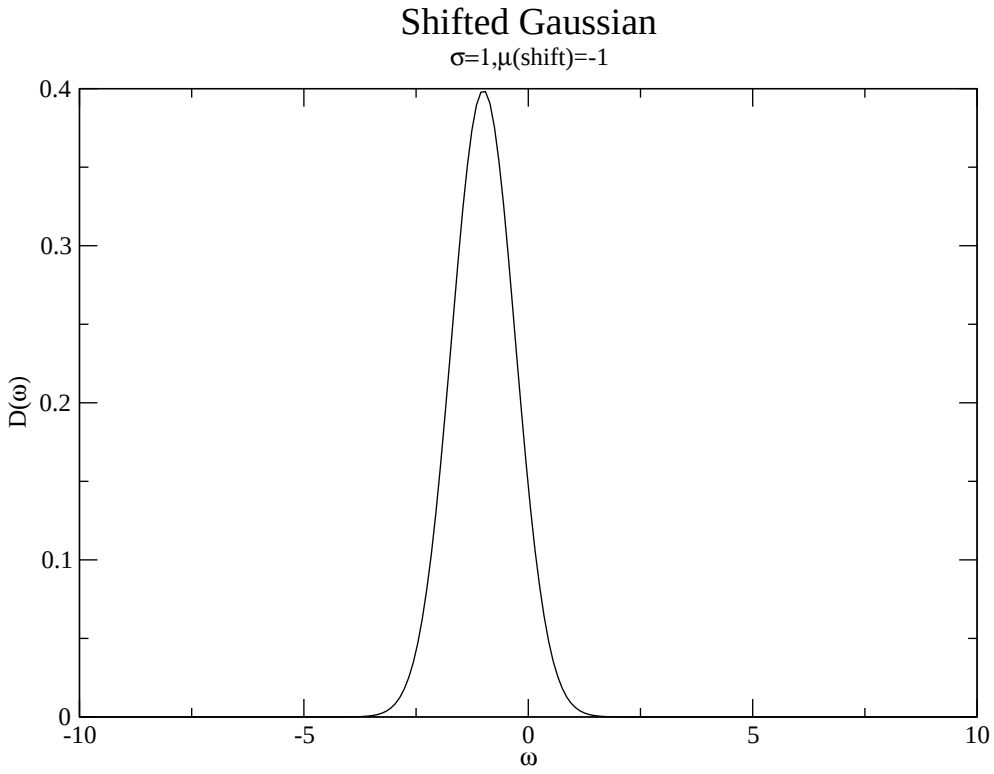
Part I
Flat

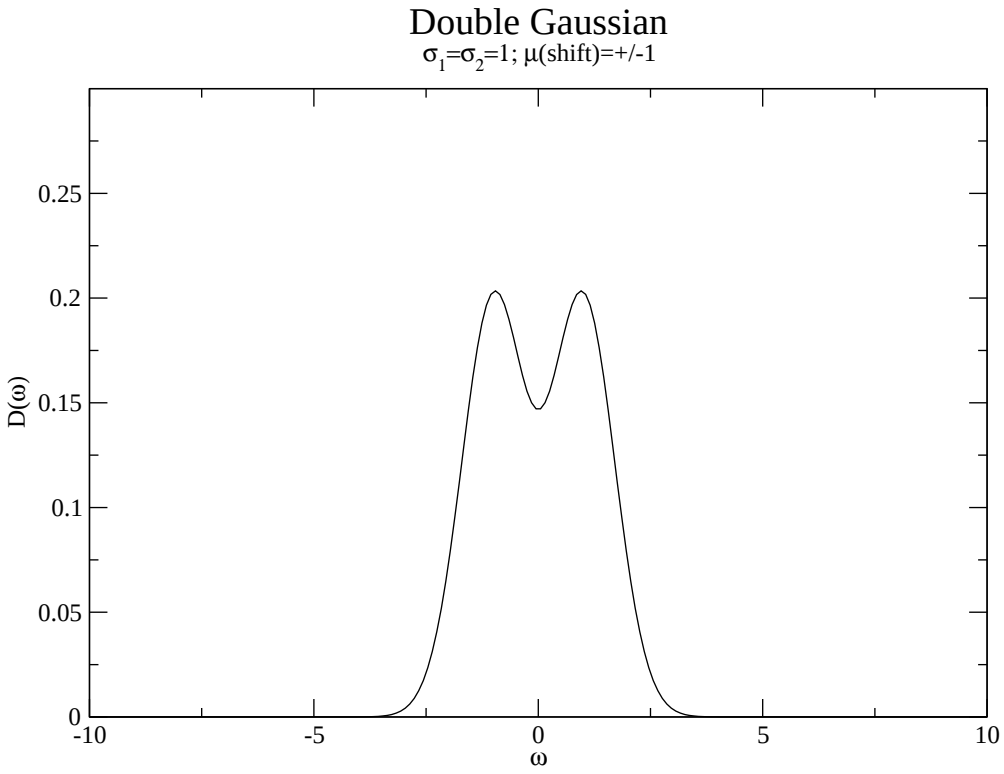


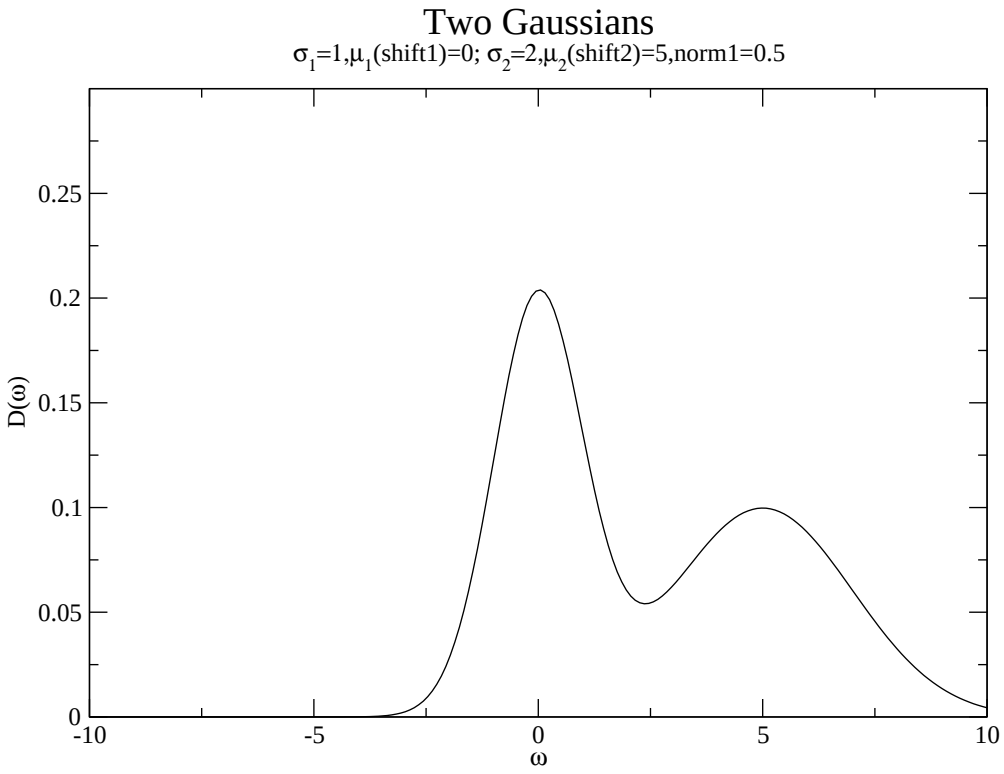
Part II

Gaussian

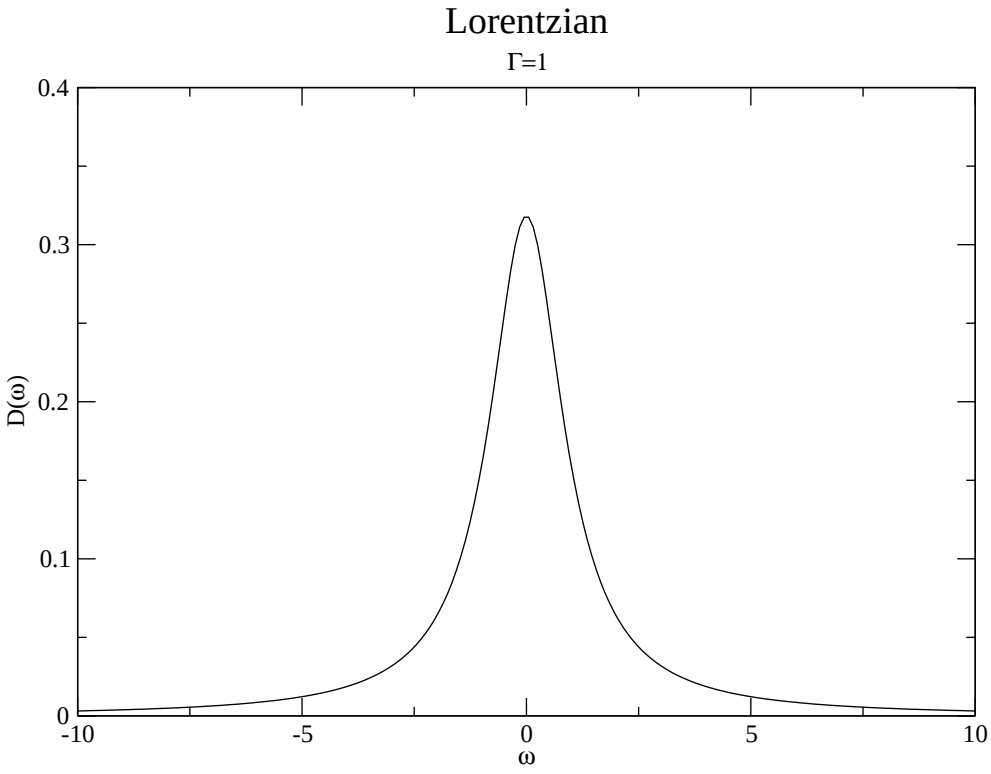



Shifted Gaussian
σ=1,μ(shift)=-1
D(ω)
ω
0.4
0.3
0.2
0.1
0
-10
-5
0
5
10


Double Gaussian
σ1=σ2=1; μ(shift)=+/-1
D(ω)
ω
0
0.05
0.1
0.15
0.2
0.25
-10
-5
0
5
10


Two Gaussians
σ1=1,μ1(shift1)=0; σ2=2,μ2(shift2)=5,norm1=0.5
D(ω)
ω
0
0.05
0.1
0.15
0.2
0.25
-10
-5
0
5
10

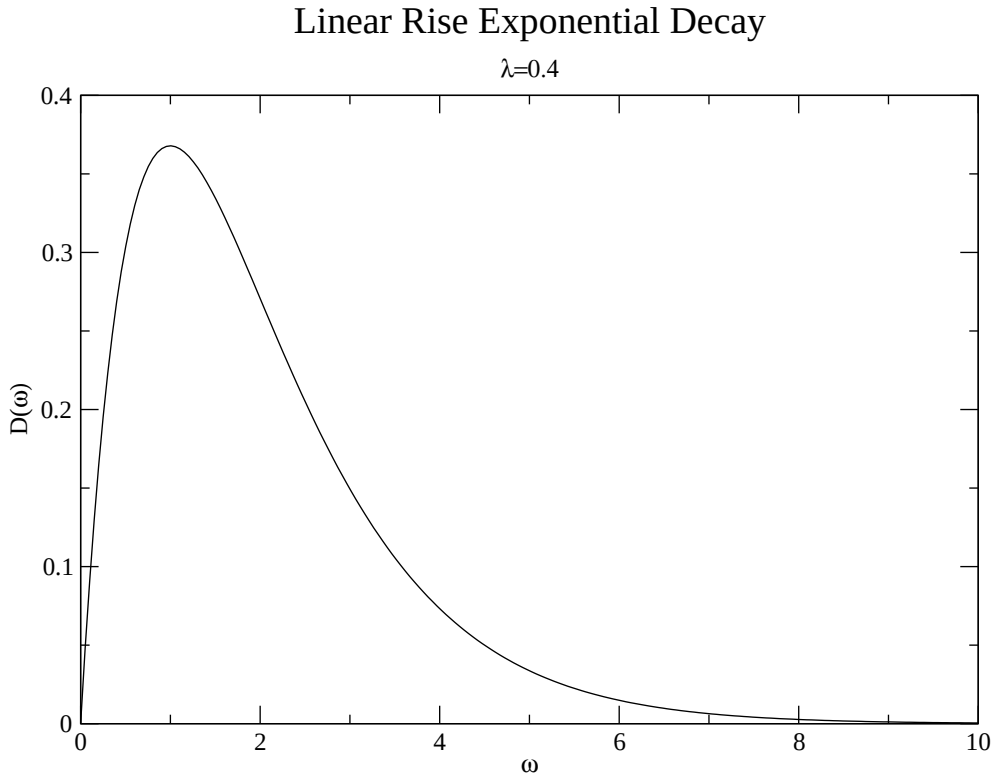
Part III
Lorentzian

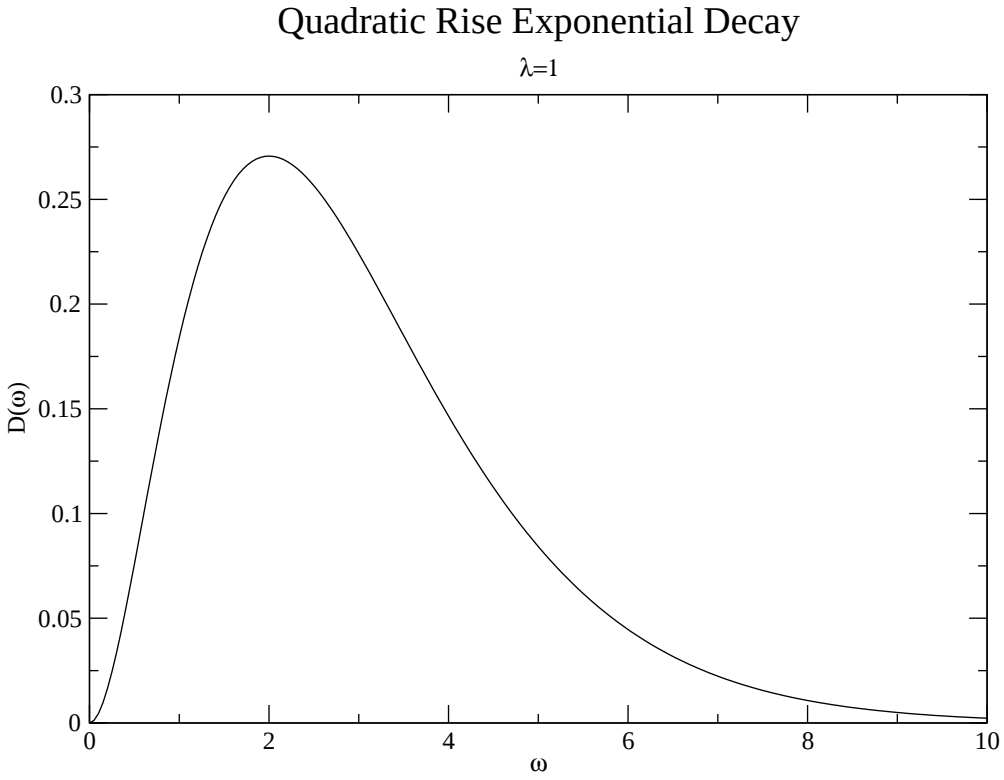


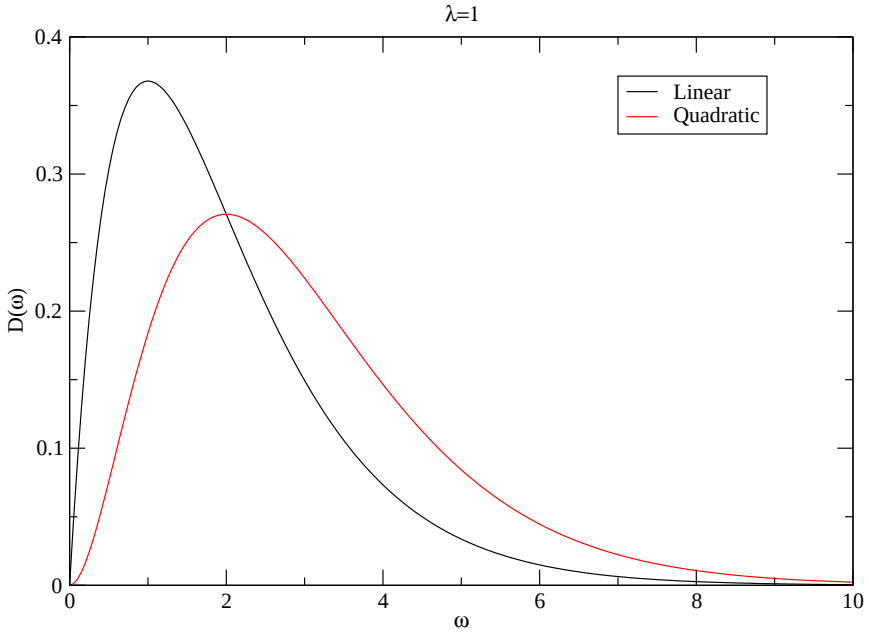
See Gaussian for similar models

Part IV

(Linear/Quadratic) Exponential Decay




Quadratic Rise Exponential Decay
λ=1
D(ω)
ω
0.3
0.25
0.2
0.15
0.1
0.05
0
0
2
4
6
8
10


Comparison of __RiseExpDecay
λ=1
D(ω)
ω
Linear
Quadratic
0.4
0.3
0.2
0.1
0
0
2
4
6
8
10