

# Computational Assignment #3

Ryan Coyne

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$T = 300$  K:

$Z = 0.0257000324254782$

Analytic Mean = 0.025699967574562714

Numerical Mean = 0.025699935142720585

Analytic Variance = 0.0006604899999989488

Numerical Variance = 0.0006604916669912035

$T = 500$  K:

$Z = 0.0428333527886234$

Analytic Mean = 0.04283331387805211

Numerical Mean = 0.042833294343230716

Analytic Variance = 0.0018346944444440655

Numerical Variance = 0.0018346960388592663

$T = 1000$  K:

$Z = 0.08566667639431236$

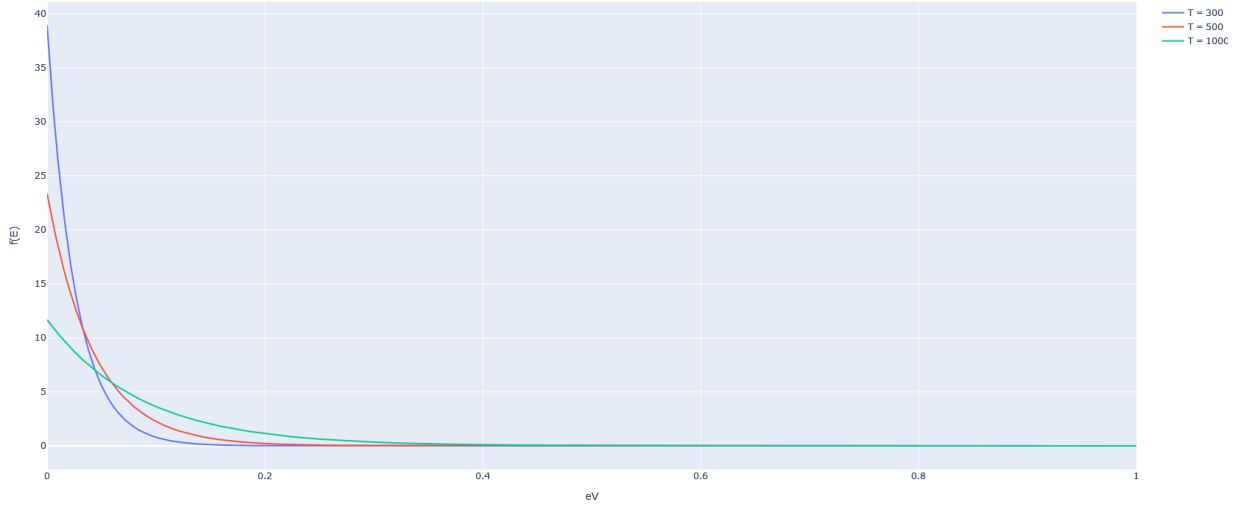
Analytic Mean = 0.08566665693902209

Numerical Mean = 0.08565739786178304

Analytic Variance = 0.007338777777777682

Numerical Variance = 0.007330259849358138

## Boltzmann Distribution



## Exponential Plot

