evidence

April 21, 2020

In [1]:
```
import numpy as np
import posterior as pos

posterior = pos.posterior()
```

In [2]:
```
lmax = 500

ns_range = [0.85, 1.15, 0.005]
file_scal = 'cls_scal_lmax2500_ns0p85-1p15_step0p005.npy'
file_tens = 'cls_tens_lmax2500.npy'
file_data = 'cls_data_lmax2500.npy'

posterior.load_theory(file_scal, file_tens, lmax, ns_range)
posterior.load_data(file_data, lmax)
```

In [3]:
```
intervals = [(0.5, 1.5), (0.90, 1.10), (0., 0.5)]
#intervals = [(0.5, 1.5), (0., 0.5)]
max_n = 10000
tol = 1e-9
```

In [4]:
```
lnev = posterior.calc_evidence(intervals, tol, max_n, [ns_range[0], ns_range[1]], [])

print 'Ln(Evidence) = ', lnev
```

```
LnEv: 3809784.630190 | err: 2.6e-10 :  61%|    | 6099/10000 [09:21<04:18, 15.07it/s]

 Converged!
Ln(Evidence) =  3809784.63019
```

In [8]:
```
3809784.63019-3809767.35759
```

Out[8]:
```
17.272599999792874
```