

chains_analysis

May 29, 2019

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In [1]: import numpy as np
import matplotlib.pyplot as plt
import emcee
import corner

In [2]: filename = 'chains/test.chains'
name = '000'
burnin = 500
thin = 1

In [3]: reader = emcee.backends.HDFBackend(filename, name=name, read_only=True)
samples = reader.get_chain(discard=burnin, thin=thin, flat=True)

print 'number of samples =', samples.shape[0]

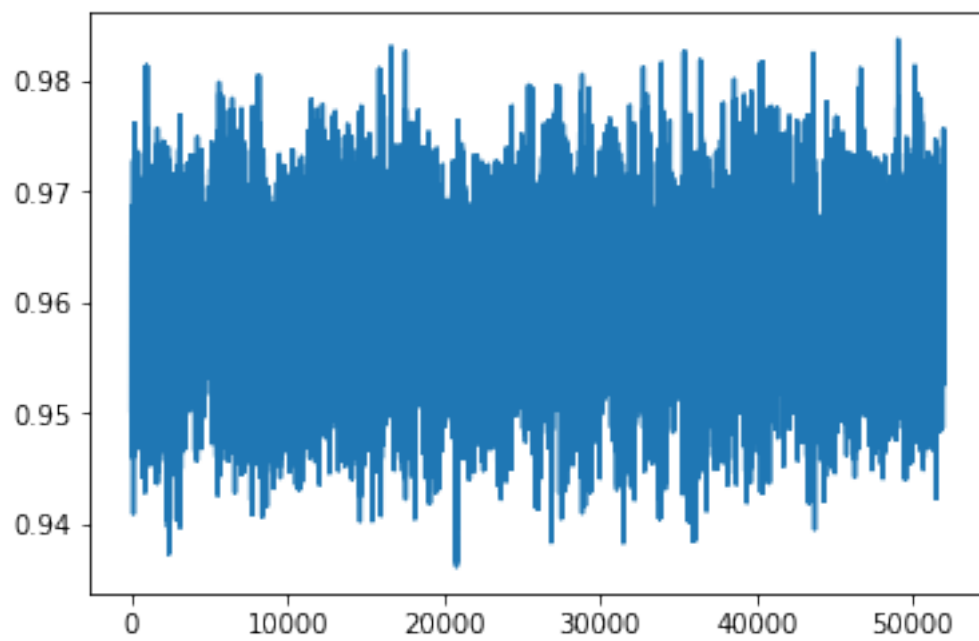
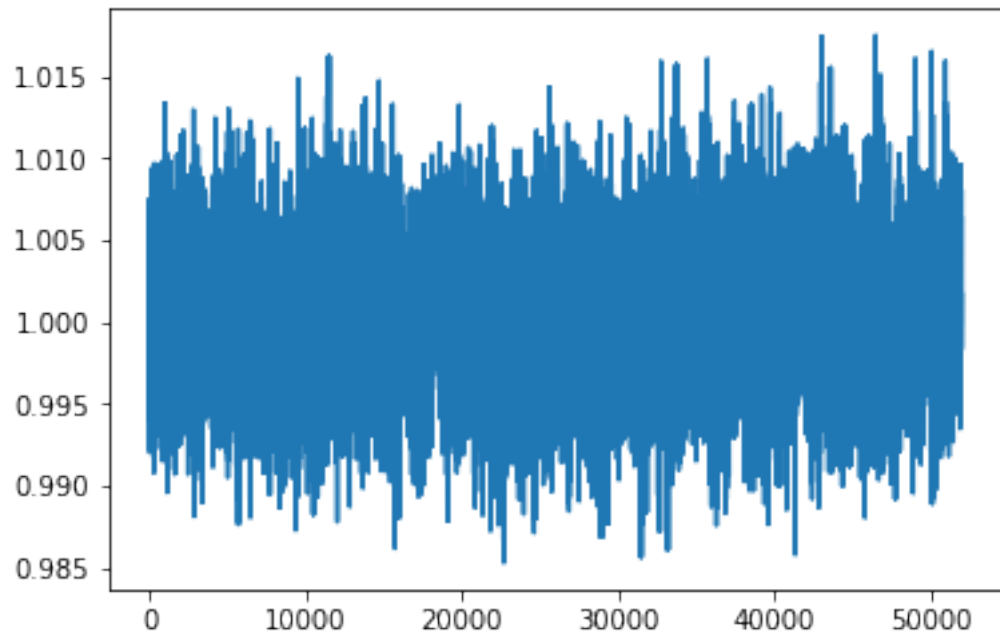
number of samples = 52000

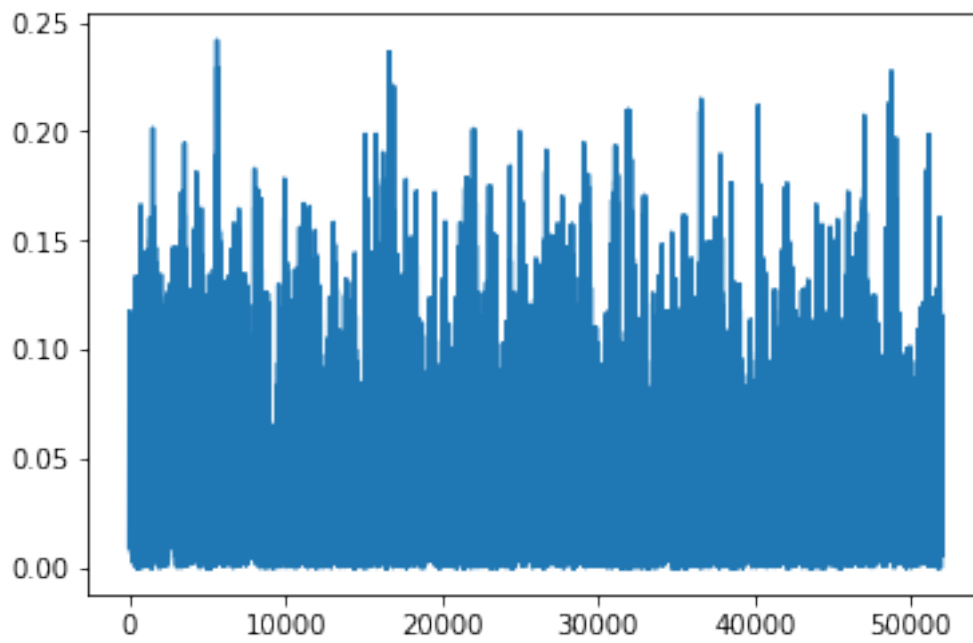
In [4]: lnpos = reader.get_log_prob(discard=burnin, flat=True)
bf = samples[np.argmax(lnpos),:]

print 'best fit = ', bf

best fit = [ 9.99936978e-01  9.57827218e-01  8.29767814e-04]

In [5]: for i in range(samples.shape[1]):
plt.plot(samples[:,i])
plt.show()
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In [6]: corner.corner(samples, labels=('$A_s$', '$n_s$', '$r$'), quantiles=(0.025, 0.16, 0.84, 0.975),  
plt.show()
```

