In [1]:

```
%pylab inline

import scipy.stats as sps
import numpy as np
import matplotlib.pyplot as plt
```
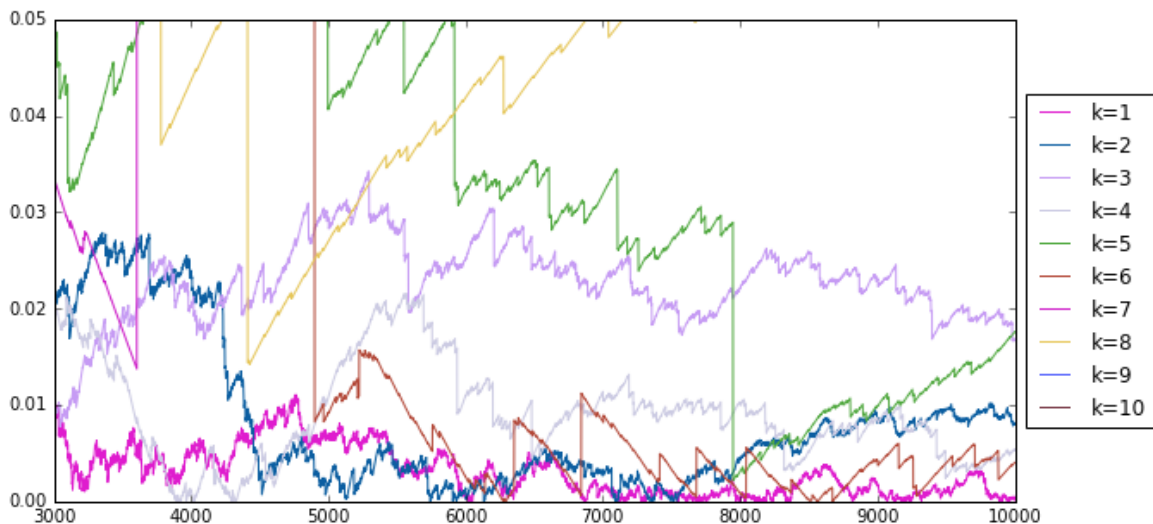
Populating the interactive namespace from numpy and matplotlib

In [2]:

```
def print_plot(k):
    s = sps.expon.rvs(size=10000, loc=0, scale=1)
    est = abs((math.factorial(k) * (((s**k).cumsum() / np.arange(1, 10001))**(
    plt.plot(np.arange(1, 10001), est, color=random.rand(3,1), label='k=' + st
```

In [3]:

```
plt.figure(figsize= (10, 5))
plt.ylim((0, 0.05))
plt.xlim((3000, 10000))
for k in range(1,11):
    print_plot(k)
plt.legend(loc='center left', bbox_to_anchor=(1, 0.5))
plt.show()
```


При k=1 лучшая оценка