```
In [1]: import seaborn as sns
   import pandas as pd
   import matplotlib.pyplot as plt
   import numpy as np
   %matplotlib inline
In [2]: df = pd.read_csv("myFile2.txt", header = None)
```

```
In [2]: | df = pd.read_csv("myFile2.txt", header = None)
```

```
In [3]: df.drop([0], axis=1,inplace = True)
```

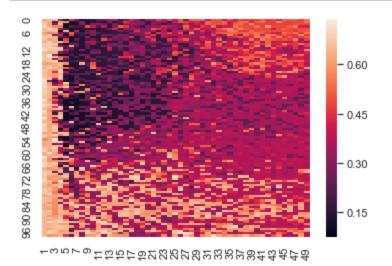
Out[4]:

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 40 | 41 | 42 | 43 | |
|---|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|-------------|---------|---------|---------|-------|
| 0 | 0.61213 | 0.65561 | 0.65904 | 0.289470 | 0.11442 | 0.45309 | 0.27574 | 0.12128 | 0.12471 | 0.14989 | 0.47025 | 0.50915 | 0.46796 | 0.48169 | 0.42 |
| 1 | 0.65446 | 0.63616 | 0.18993 | 0.610980 | 0.59954 | 0.11670 | 0.14416 | 0.30549 | 0.12471 | 0.14989 | 0.51030 | 0.53089 | 0.47025 | 0.46796 | 0.580 |
| 2 | 0.67963 | 0.61327 | 0.27803 | 0.659040 | 0.11670 | 0.11670 | 0.12243 | 0.30549 | 0.14760 | 0.30435 | 0.46568 | 0.47368 | 0.47140 | 0.46911 | 0.47 |
| 3 | 0.69222 | 0.63043 | 0.57437 | 0.567510 | 0.11670 | 0.22311 | 0.19565 | 0.17963 | 0.50229 | 0.39931 | 0.53547 | 0.48284 | 0.60412 | 0.48513 | 0.480 |
| 4 | 0.64989 | 0.71625 | 0.66934 | 0.330660 | 0.19794 | 0.11670 | 0.13272 | 0.14302 | 0.14531 | 0.14645 | 0.48856 | 0.48856 | 0.48970 | 0.41419 | 0.487 |
| 5 | 0.65217 | 0.64989 | 0.66934 | 0.075515 | 0.64645 | 0.11670 | 0.40847 | 0.12128 | 0.25744 | 0.30092 | 0.48970 | 0.49771 | 0.49199 | 0.49542 | 0.490 |
| 6 | 0.60526 | 0.55492 | 0.58924 | 0.278030 | 0.19451 | 0.52517 | 0.23455 | 0.19222 | 0.26087 | 0.28261 | 0.53661 | 0.50801 | 0.46568 | 0.41648 | 0.410 |
| 7 | 0.63272 | 0.67048 | 0.26087 | 0.426770 | 0.11556 | 0.47941 | 0.14073 | 0.19336 | 0.14416 | 0.28375 | 0.55149 | 0.40503 | 0.57208 | 0.54119 | 0.456 |
| 8 | 0.68078 | 0.67391 | 0.64188 | 0.250570 | 0.21854 | 0.11556 | 0.14188 | 0.14188 | 0.30435 | 0.14645 | 0.55721 | 0.52746 | 0.57094 | 0.45881 | 0.57 |
| 9 | 0.66705 | 0.61442 | 0.63616 | 0.075515 | 0.47712 | 0.11327 | 0.25400 | 0.14188 | 0.19680 | 0.24714 | 0.41876 | 0.56064 | 0.51030 | 0.51030 | 0.460 |

10 rows × 49 columns

heatmap of missrate

In [5]: import seaborn as sns; sns.set()
ax = sns.heatmap(df)



In [6]: df.describe()

Out[6]:

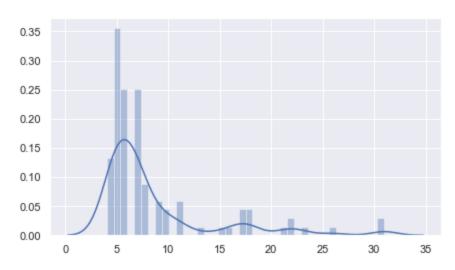
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|
| count | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 100.000000 | 10 |
| mean | 0.661350 | 0.635755 | 0.553238 | 0.477483 | 0.359073 | 0.302688 | 0.286350 | 0.301476 | 0.325938 | 0.318307 | 0.4 |
| std | 0.029618 | 0.052138 | 0.146204 | 0.204594 | 0.207821 | 0.191051 | 0.170224 | 0.177252 | 0.177412 | 0.153106 | 0.1 |
| min | 0.569790 | 0.244850 | 0.133870 | 0.075515 | 0.099542 | 0.104120 | 0.106410 | 0.102970 | 0.121280 | 0.114420 | 0.2 |
| 25% | 0.642735 | 0.615560 | 0.519160 | 0.283465 | 0.164760 | 0.140730 | 0.138440 | 0.141880 | 0.189358 | 0.214532 | 0.3 |
| 50% | 0.661900 | 0.635010 | 0.601830 | 0.588675 | 0.348970 | 0.223110 | 0.233410 | 0.278605 | 0.281465 | 0.293480 | 0.3 |
| 75% | 0.679918 | 0.657040 | 0.657890 | 0.652743 | 0.583240 | 0.459670 | 0.359555 | 0.365275 | 0.467108 | 0.375573 | 0.4 |
| max | 0.732270 | 0.736840 | 0.718540 | 0.718540 | 0.694510 | 0.696800 | 0.680780 | 0.685350 | 0.699080 | 0.701370 | 0.6 |

8 rows × 49 columns

In [7]: $a4_{dims} = (7, 4)$

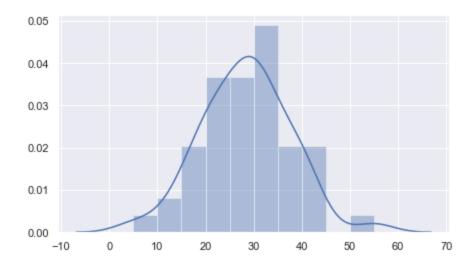
histogram of k that generate minimum missrate

In [8]: fig, ax = plt.subplots(figsize=a4_dims)
fig=sns.distplot(df.idxmin(axis = 1),bins=40)



histogram of gamma that generate minimum missrate

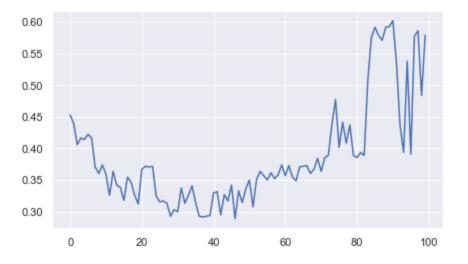
In [9]: fig, ax = plt.subplots(figsize=a4_dims)
fig=sns.distplot(df.idxmin(axis = 0),bins=10)



median of missrate w.r.t. gamma

```
In [10]: ax = plt.subplots(figsize=a4_dims)
sns.lineplot(data = df.median(axis = 1))
```

Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0x110f9f7f0>



median of missrate w.r.t. k

```
In [11]: ax = plt.subplots(figsize=a4_dims)
sns.lineplot(data = df.median(axis = 0))
```

Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x1112f5f60>

