TODIM Sensitivity Analysis Theta

June 24, 2021

[1]:
```
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
```

[2]:
```
%matplotlib inline
plt.rcParams["figure.dpi"] = 1000
plt.rcParams['font.family'] = 'serif'
plt.rcParams['font.size'] = '8'
```

[3]:
```
ranking_data = pd.read_csv('theta_rankings.csv')
ranking_data
```

[3]:

	Theta	S1	S2	S3	S4	S5	S6
0	1.0	3	6	4	1	5	2
1	1.1	3	6	4	1	5	2
2	1.2	3	6	4	1	5	2
3	1.3	3	6	4	1	5	2
4	1.4	3	6	4	1	5	2
…	…	..	..	..	..	..	..
996	100.6	5	6	3	1	4	2
997	100.7	5	6	3	1	4	2
998	100.8	5	6	3	1	4	2
999	100.9	5	6	3	1	4	2
1000	101.0	5	6	3	1	4	2

[1001 rows x 7 columns]

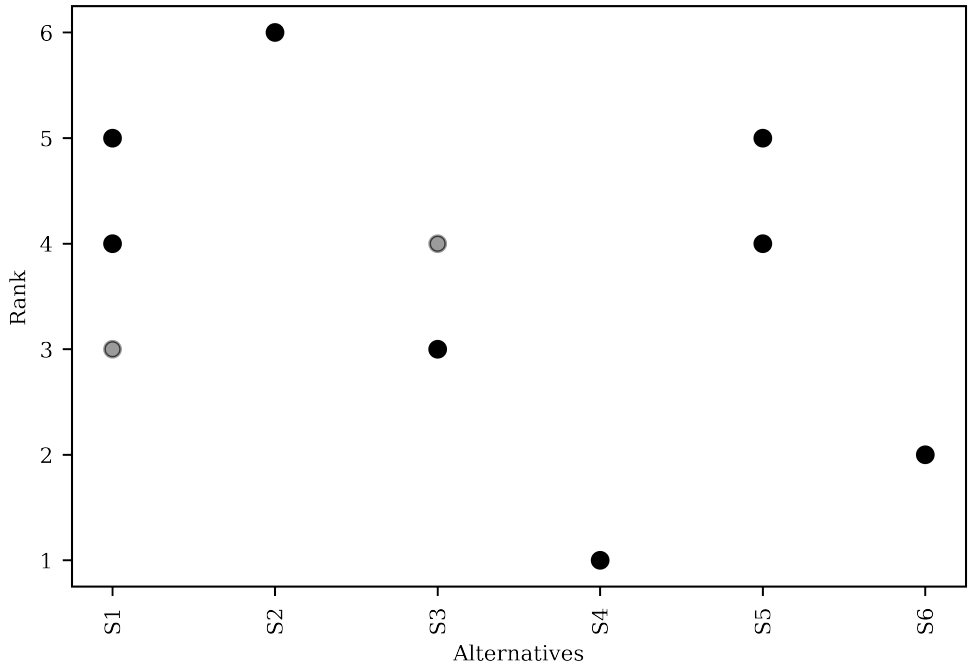
[4]:
```
just_ranks = ranking_data.drop('Theta', axis=1)
just_ranks
```

[4]:

	S1	S2	S3	S4	S5	S6
0	3	6	4	1	5	2
1	3	6	4	1	5	2
2	3	6	4	1	5	2
3	3	6	4	1	5	2
4	3	6	4	1	5	2
…	..	..	..	..	..	..

```
996     5   6   3   1   4   2
997     5   6   3   1   4   2
998     5   6   3   1   4   2
999     5   6   3   1   4   2
1000    5   6   3   1   4   2

[1001 rows x 6 columns]
```

[5]:
```
x = just_ranks.columns

plt.xticks(rotation='vertical')
plt.yticks(ticks=range(1, len(x) + 1))

plt.xlabel('Alternatives')
plt.ylabel('Rank')

for _, row in just_ranks.iterrows():
    plt.scatter(x=x, y=list(row), alpha=0.005, c='black')
```



[ ]:
```

```