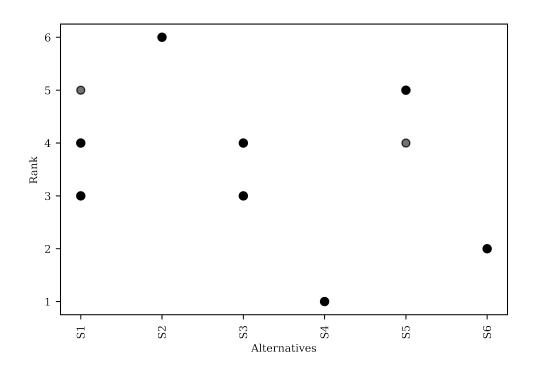
## TODIM Sensitivity Analysis Weight Shuffle

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('weight_rankings.csv')
    ranking_data
[3]:
         S1 S2 S3
                     S4 S5
                             S6
    0
              6
                  4
                      1
                          5
                              2
    1
          4
              6
                          5
                              2
                 3
                      1
    2
          3
              6
                 4
                          5
                              2
                      1
    3
          5
              6
                          4
                              2
                  3
                      1
    4
          4
              6
                          5
                              2
                  3
                      1
                             . .
                              2
    995
          5
             6
                 3
                     1
                          4
                              2
    996
          5
              6
                 3
                      1
    997
          3
              6 4 1 5 2
    998
              6
                 3
                     1
                          4
                              2
    999
              6
                  3
                      1
    [1000 rows x 6 columns]
[4]: x = ranking_data.columns
    plt.xticks(rotation='vertical')
    plt.yticks(ticks=range(1, len(x) + 1))
    plt.xlabel('Alternatives')
    plt.ylabel('Rank')
    for _, row in ranking_data.iterrows():
        plt.scatter(x=x, y=list(row), alpha=0.002, c='black')
```



[]: