

# Results

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## 1 Results

| Using                     | N Sources | Noise | N runs | N Samples | Error Average | Max Error (Min E |
|---------------------------|-----------|-------|--------|-----------|---------------|------------------|
| Stacking Lego             | 1         | 20    | 50     | 128       | 0.1           | 2 (0)            |
| Stacking Lego             | 1         | 20    | 50     | 256       | 0.04          | 4 (0)            |
| Stacking Lego             | 1         | 20    | 50     | 512       | 0.1           | 6 (0)            |
| Stacking Lego             | 1         | 20    | 50     | 1024      | 0             | 0 (0)            |
| Stacking Lego             | 2         | 20    | 50     | 128       | 12.7/5.26     | 69 (0)           |
| Stacking Lego             | 2         | 20    | 50     | 256       | 0.22/1.88     | 83 (0)           |
| Stacking Lego             | 2         | 20    | 20     | 512       | 0.0/0.25      | 5 (0)            |
| Stacking only 2 mics Lego | 1         | 20    | 50     | 128       | 1.26          | 64 (0)           |
| Stacking only 2 mics Lego | 1         | 20    | 50     | 256       | 0.34          | 8 (0)            |
| Stacking only 2 mics Lego | 1         | 20    | 50     | 512       | 0.16          | 4 (0)            |
| Stacking only 2 mics Lego | 1         | 20    | 50     | 1024      | 0.06          | 2 (0)            |
| Stacking only 2 mics Lego | 1         | 20    | 50     | 2048      | 0             | 0 (0)            |
| Stacking only 2 mics Lego | 2         | 20    | 50     | 128       | 16/20.32      | 82 (0)           |
| Stacking only 2 mics Lego | 2         | 20    | 50     | 256       | 6.42/14.16    | 84 (0)           |
| Stacking only 2 mics Lego | 2         | 20    | 50     | 512       | 5.42/4.6      | 31 (0)           |
| Stacking only 2 mics Lego | 2         | 20    | 50     | 1024      | 0.36/0.22     | 10 (0)           |
| Stacking Kemar            | 1         | 20    | 50     | 128       | 19.22         | 170 (0)          |
| Stacking Kemar            | 1         | 20    | 50     | 256       | 20.28         | 171 (0)          |
| Stacking Kemar            | 1         | 20    | 50     | 512       | 10.64         | 174 (0)          |
| Stacking Kemar            | 1         | 20    | 50     | 1024      | 2.48          | 13 (0)           |
| Stacking Kemar            | 1         | 20    | 50     | 2048      | 2             | 7 (0)            |
| Stacking Kemar            | 2         | 20    | 50     | 128       | 31.32/45.48   | 154 (3)          |
| Stacking Kemar            | 2         | 20    | 50     | 256       | 31.76/35.28   | 103 (1)          |
| Stacking Kemar            | 2         | 20    | 50     | 512       | 32.52/25.52   | 132.5 (1)        |

Table 1: Stacking. The number of frequencies is equivalent to (N Samples/2) + 1, the error average is per source

| Using       | N Sources | Noise | N runs | N frequencies | Wrong | Not find | wrong + not | find |
|-------------|-----------|-------|--------|---------------|-------|----------|-------------|------|
| Music Lego  | 1         | 20    | 50     | 65            | 2(1)  | 0        | 0           | 50   |
| Music Lego  | 2         | 20    | 50     | 65            | 1(1)  | 2(1)     | 0           | 48   |
| Music Lego  | 3         | 20    | 50     | 65            | 3(1)  | 4(2)     | 0           | 46   |
| Music Lego  | 4         | 20    | 50     | 65            | 7(1)  | 6(1)     | 0           | 44   |
| Music Lego  | 5         | 20    | 50     | 65            | 13(2) | 9(1)     | 3(1/1)      | 38   |
| Music Kemar | 1         | 20    | 50     | 65            | 2(1)  | 24(10)   | 42(1)       | 4    |

Table 2: Music algorithm. The wrong column is when we found more sources than searched, not find column is when there's some sources missing, wrong+not column is when both happens in a run and find is number of runs - (not find+ (wrong and not)). The number in brackets is the max wrong or not found in the runs. Kemar is probably wrong have to check that

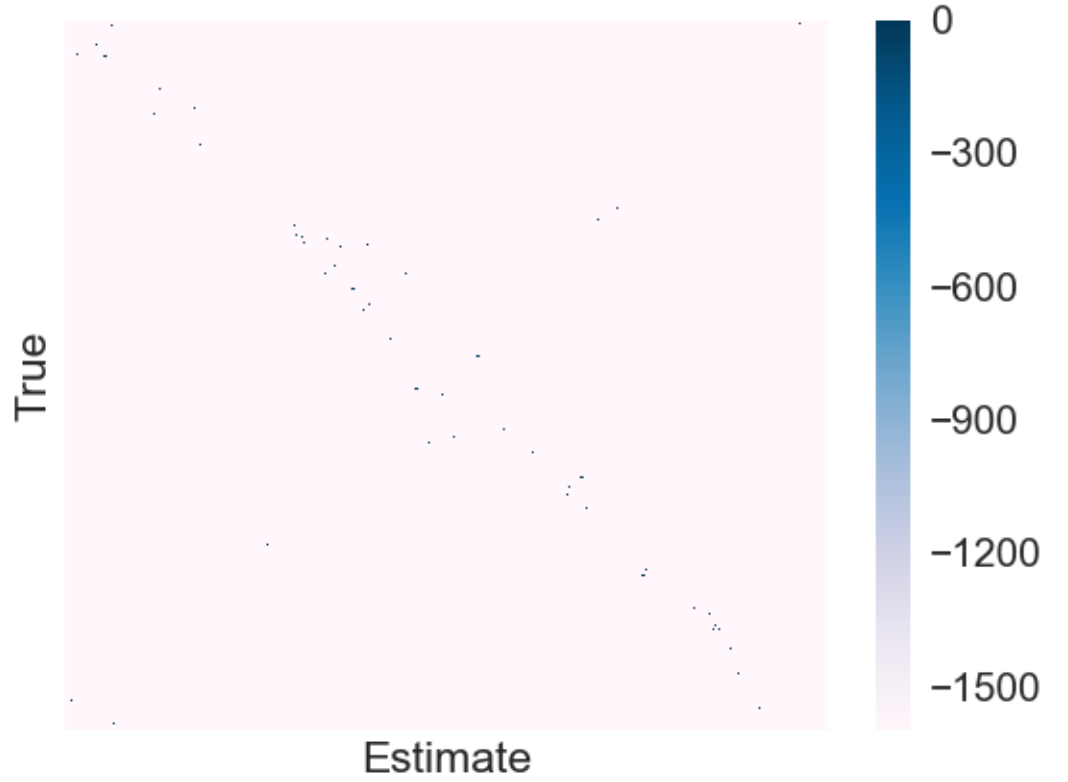


Figure 1: Kemar 1 Source 128 samples

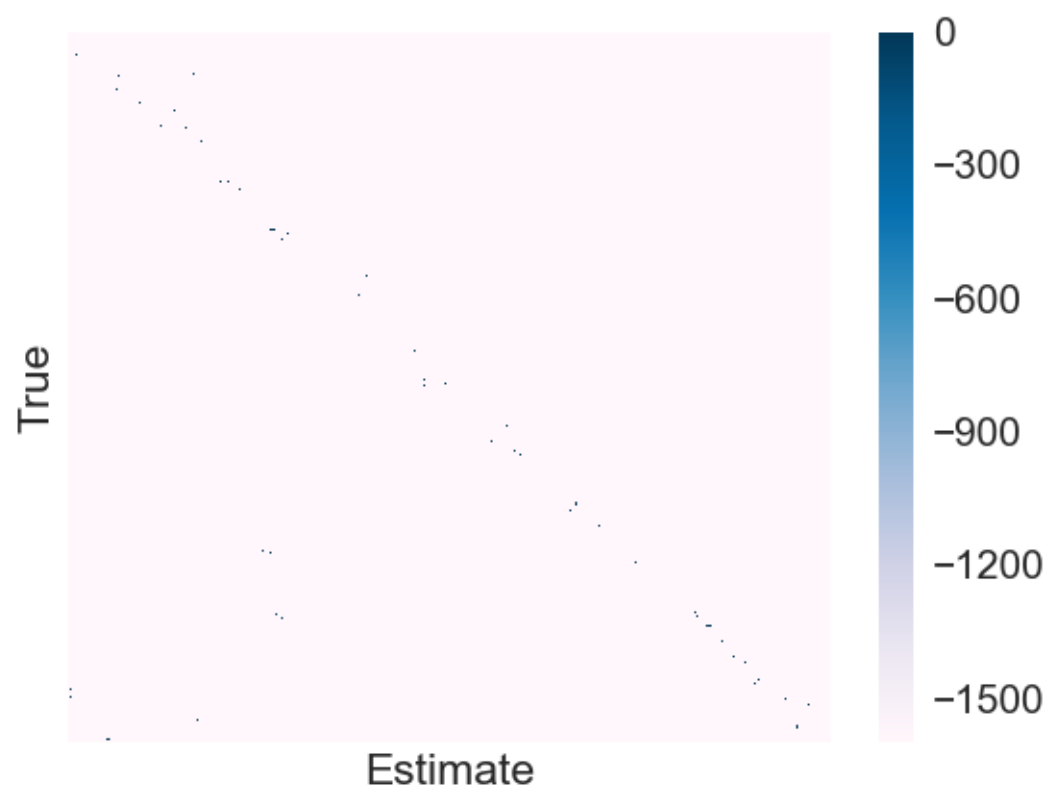


Figure 2: Kemar 1 Source 256 samples

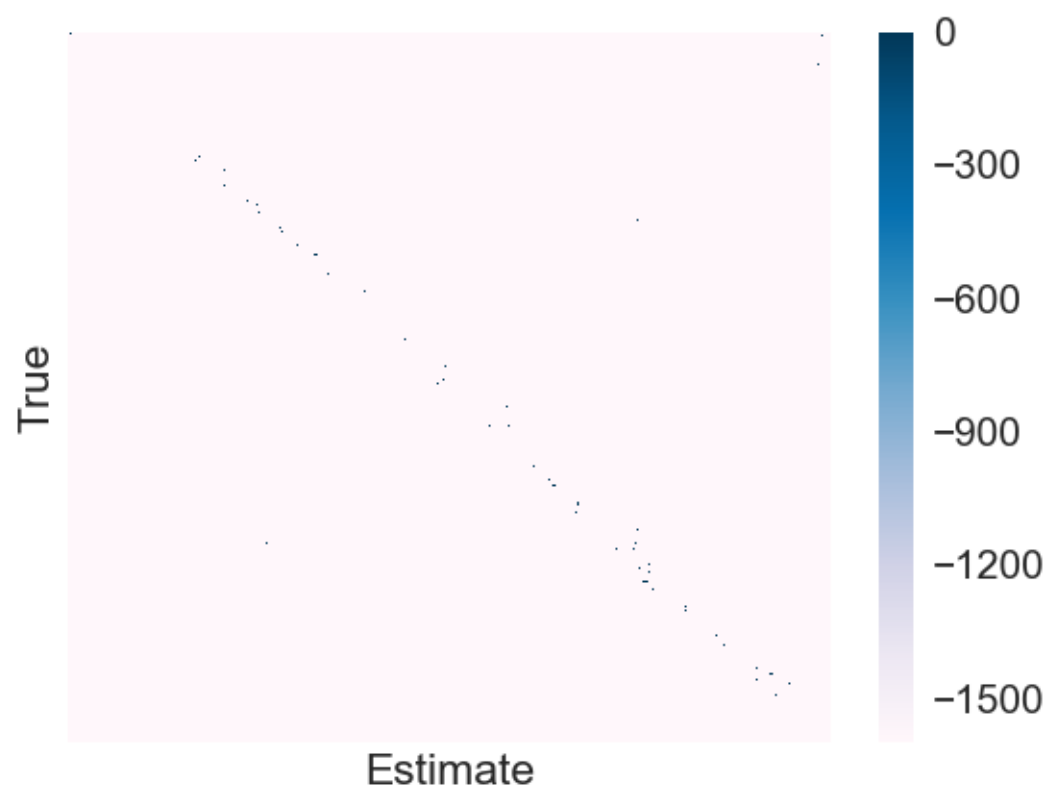


Figure 3: Kemar 1 Source 512 samples

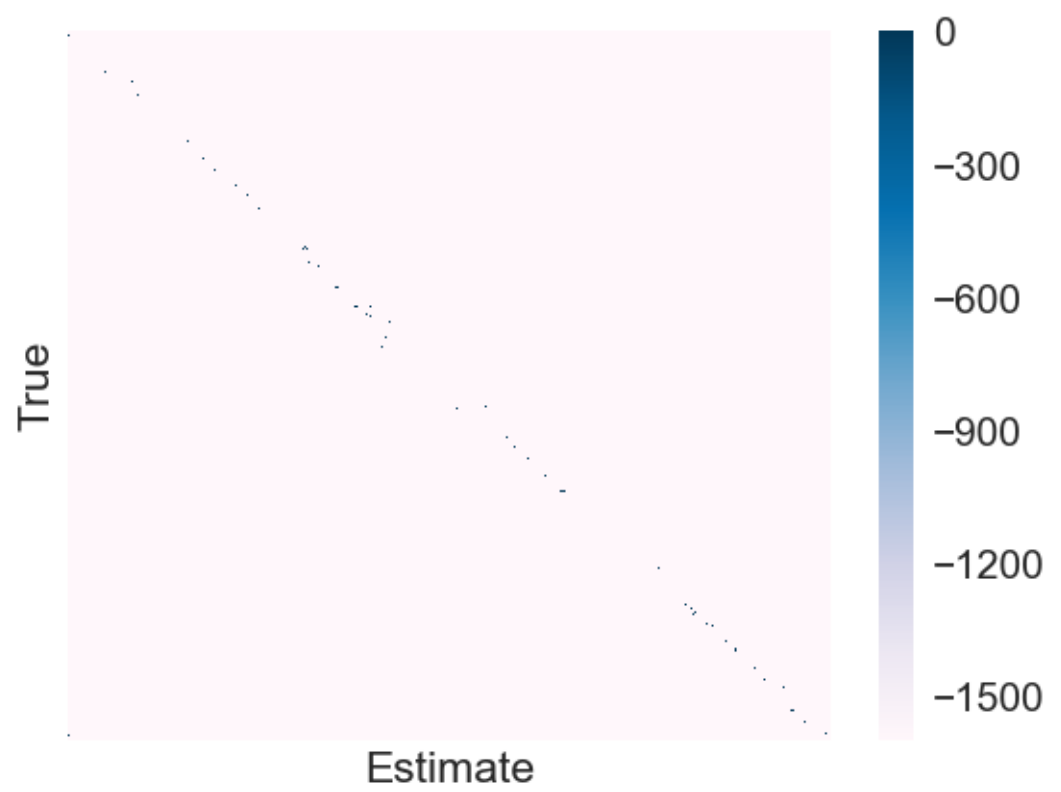


Figure 4: Kemar 1 Source 1024 samples

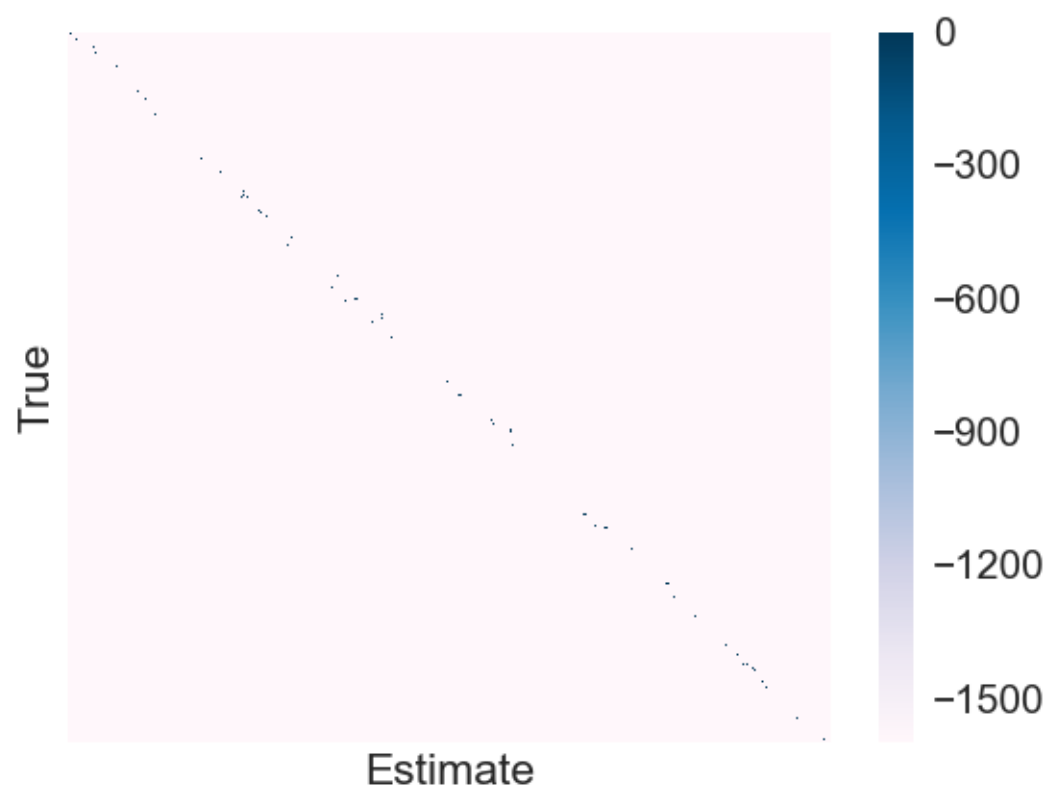


Figure 5: Kemar 1 Source 2048 samples

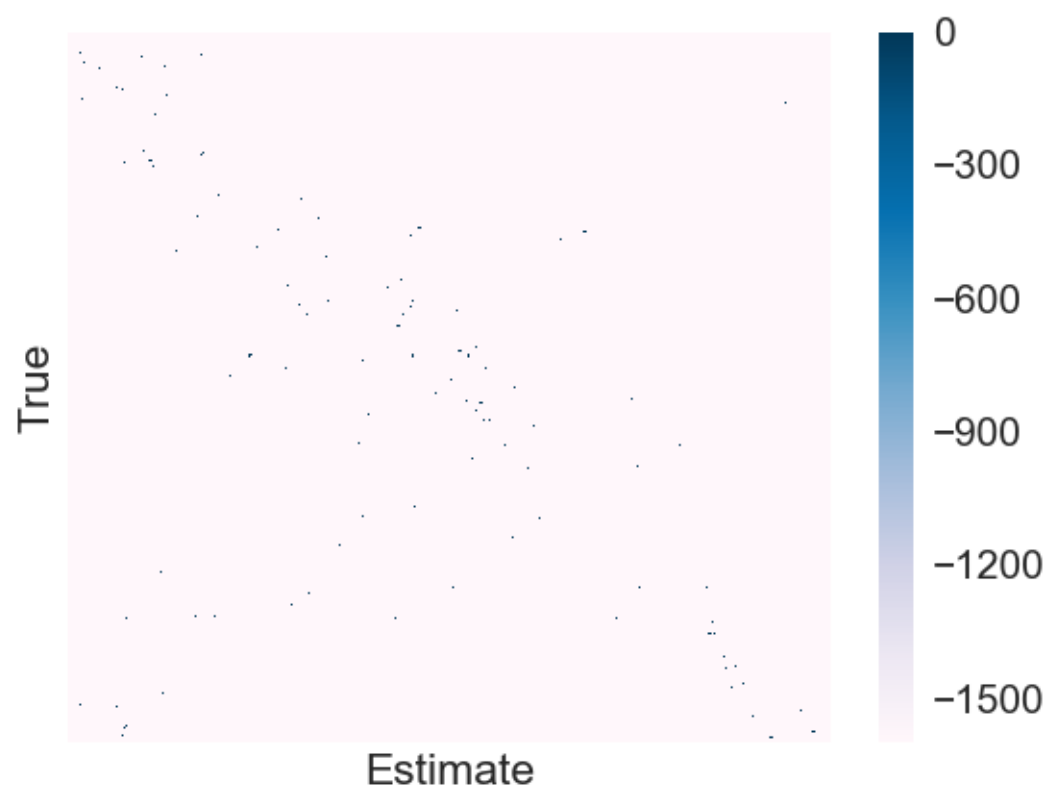


Figure 6: Kemar 2 Source 128 samples

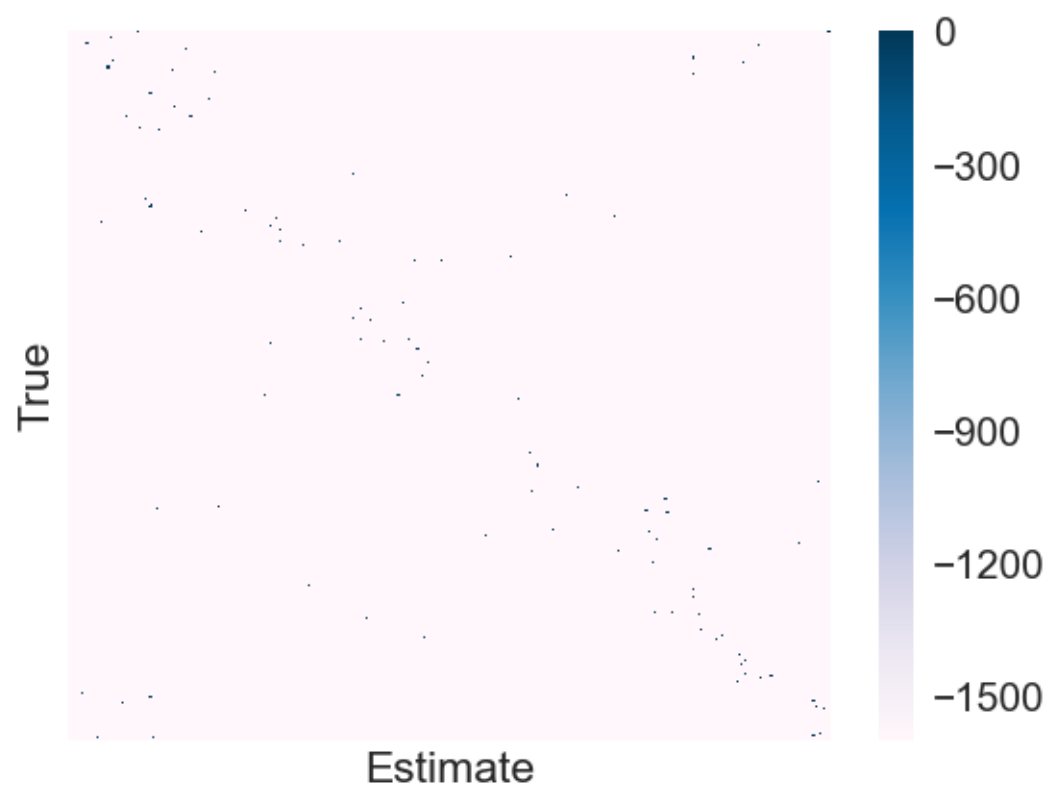


Figure 7: Kemar 2 Source 256 samples



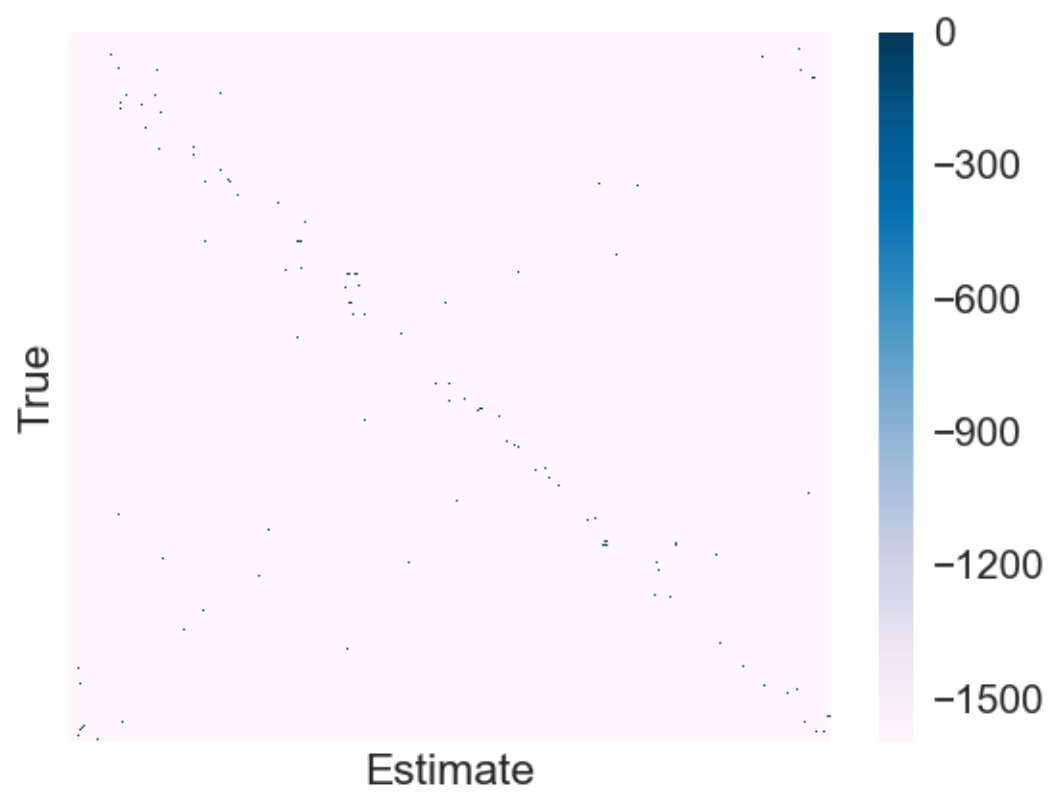


Figure 8: Kemar 2 Source 512 samples