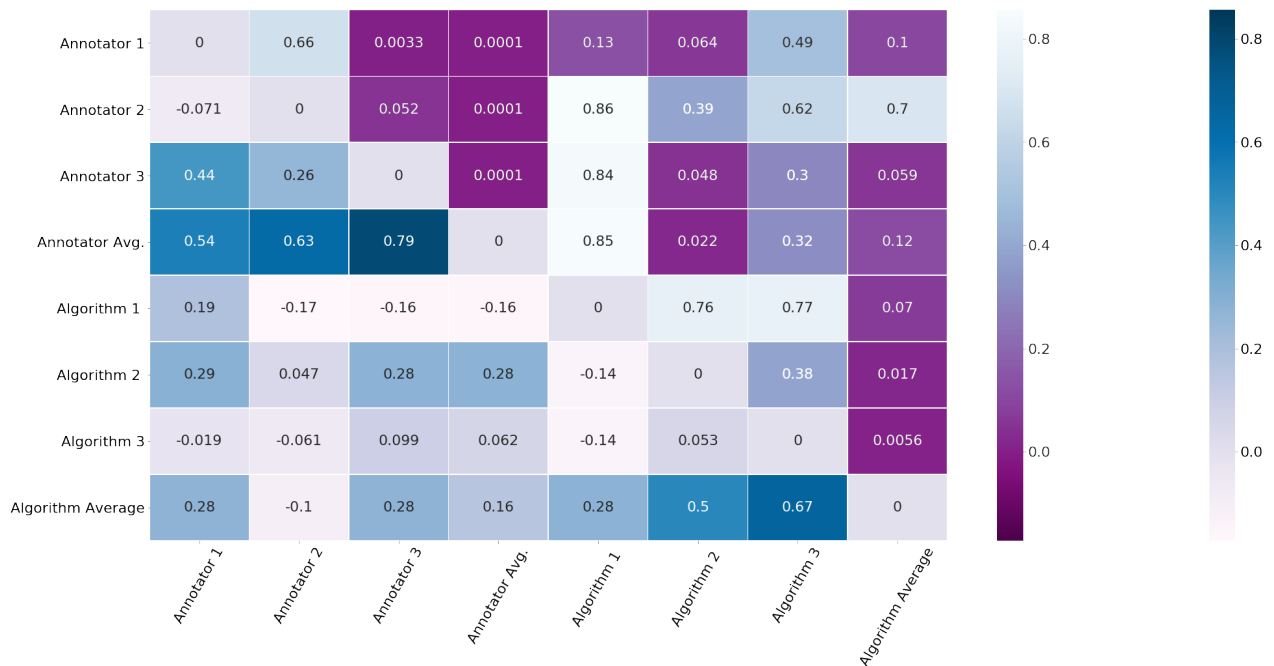# Test Data - April 2019

This experiment was conducted to test our research methods by rating similarity on only 10 of the 20 songs in our sample.

Our Test Subjects were Dr. Patrick Savage, Delton Ding and Hideo Daikoku as raters 1, 2 and 3 respectively.

We used sample 1, 3, 4, 6,10,11,14, 17,19, 20

Rater 1-2

```
Mantel statistic r: −0.07051
      Significance: 0.66473

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.215 0.269 0.313 0.375
Permutation: free
Number of permutations: 10000
```
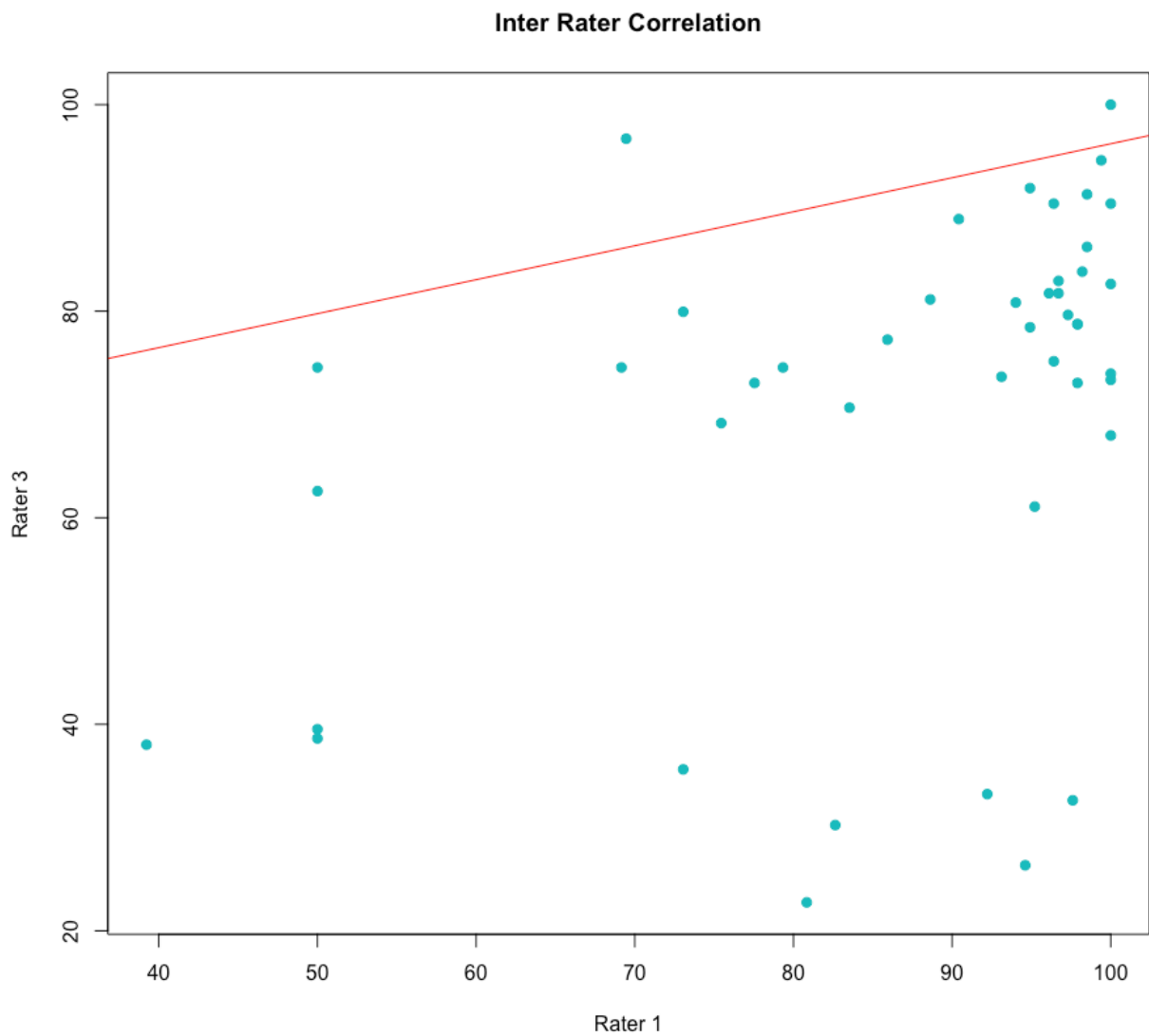
Inter Rater Correlation

Rater 1-3

```
Mantel statistic r: 0.439
      Significance: 0.0032997

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.210 0.266 0.313 0.368
Permutation: free
Number of permutations: 10000
```

Inter Rater Correlation

Rater 2-3

```
Mantel statistic r: 0.258
      Significance: 0.051695

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.202 0.260 0.306 0.362
Permutation: free
Number of permutations: 10000
```
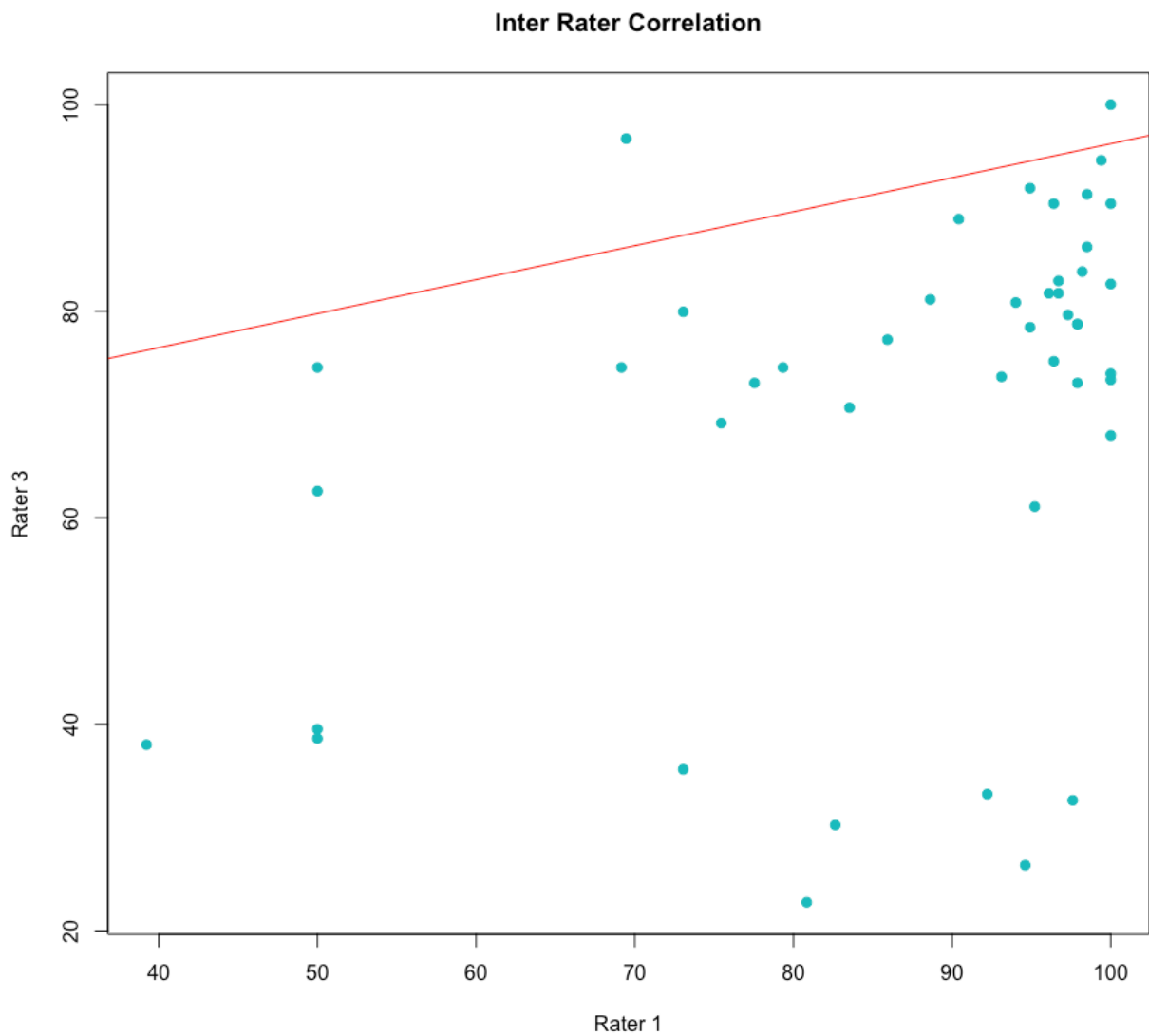
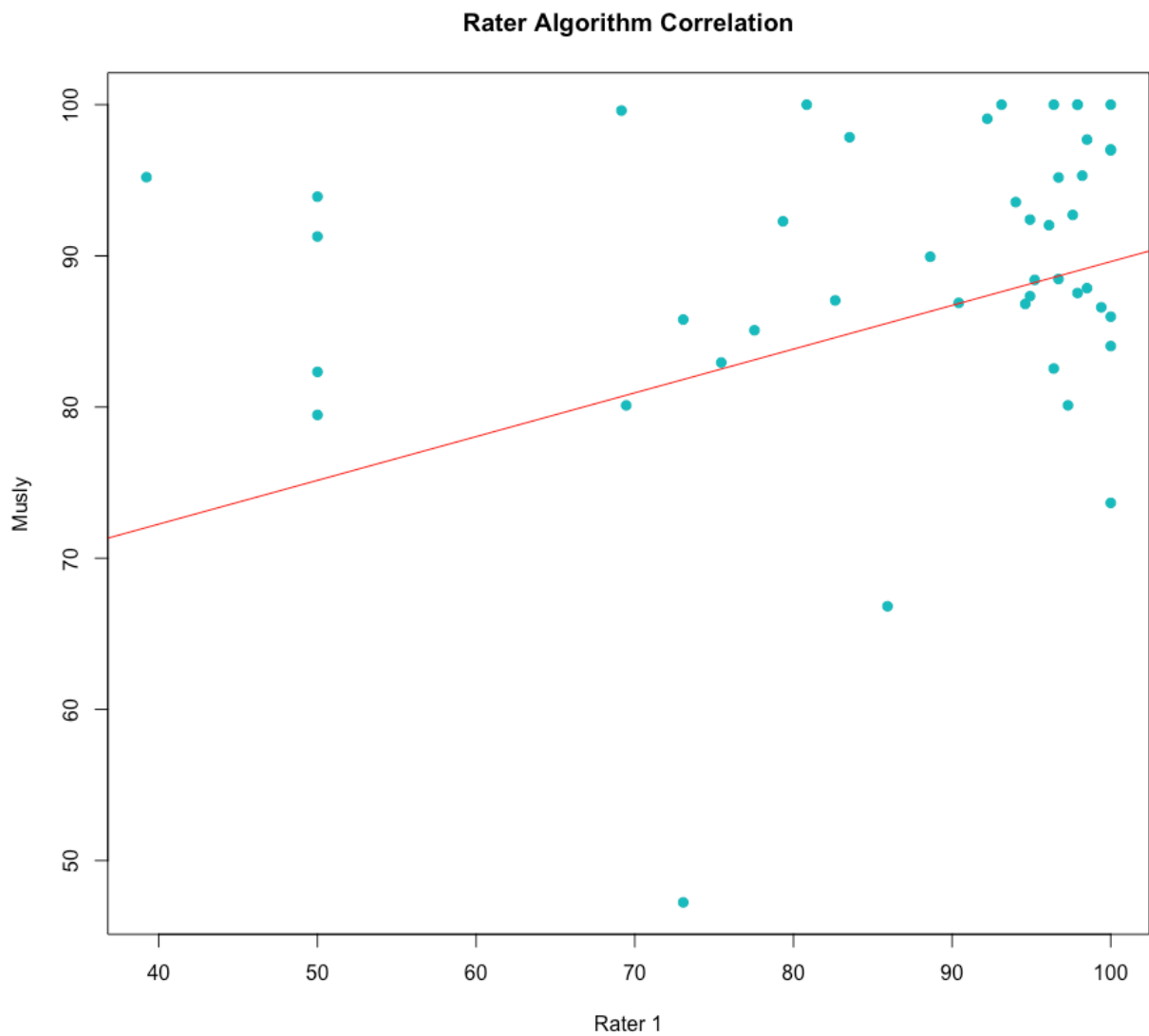**Inter Rater Correlation**

Rater 1 - Musly

```
Mantel statistic r: 0.1857
      Significance: 0.13199

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.209 0.265 0.313 0.363
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Rater 2 - Musly

```
Mantel statistic r: -0.1724
      Significance: 0.85621

Upper quantiles of permutations (null model):
  90%    95% 97.5%   99%
0.207 0.263 0.313 0.362
Permutation: free
Number of permutations: 10000
```
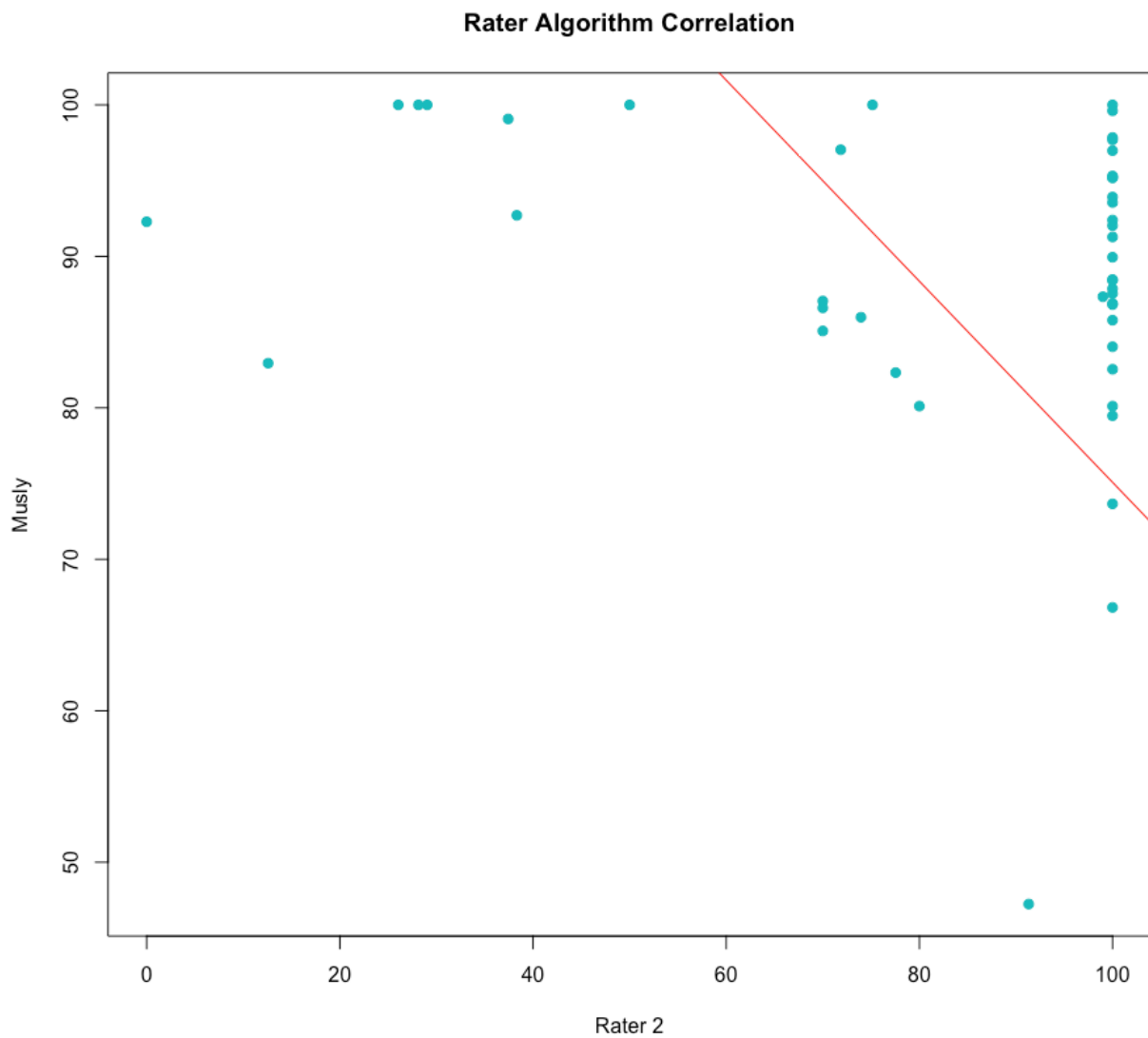
Rater Algorithm Correlation

Rater 3 - Musly

```
Mantel statistic r: -0.1587
      Significance: 0.83902

Upper quantiles of permutations (null model):
  90%   95% 97.5%   99%
0.204 0.262 0.310 0.358
Permutation: free
Number of permutations: 10000
```
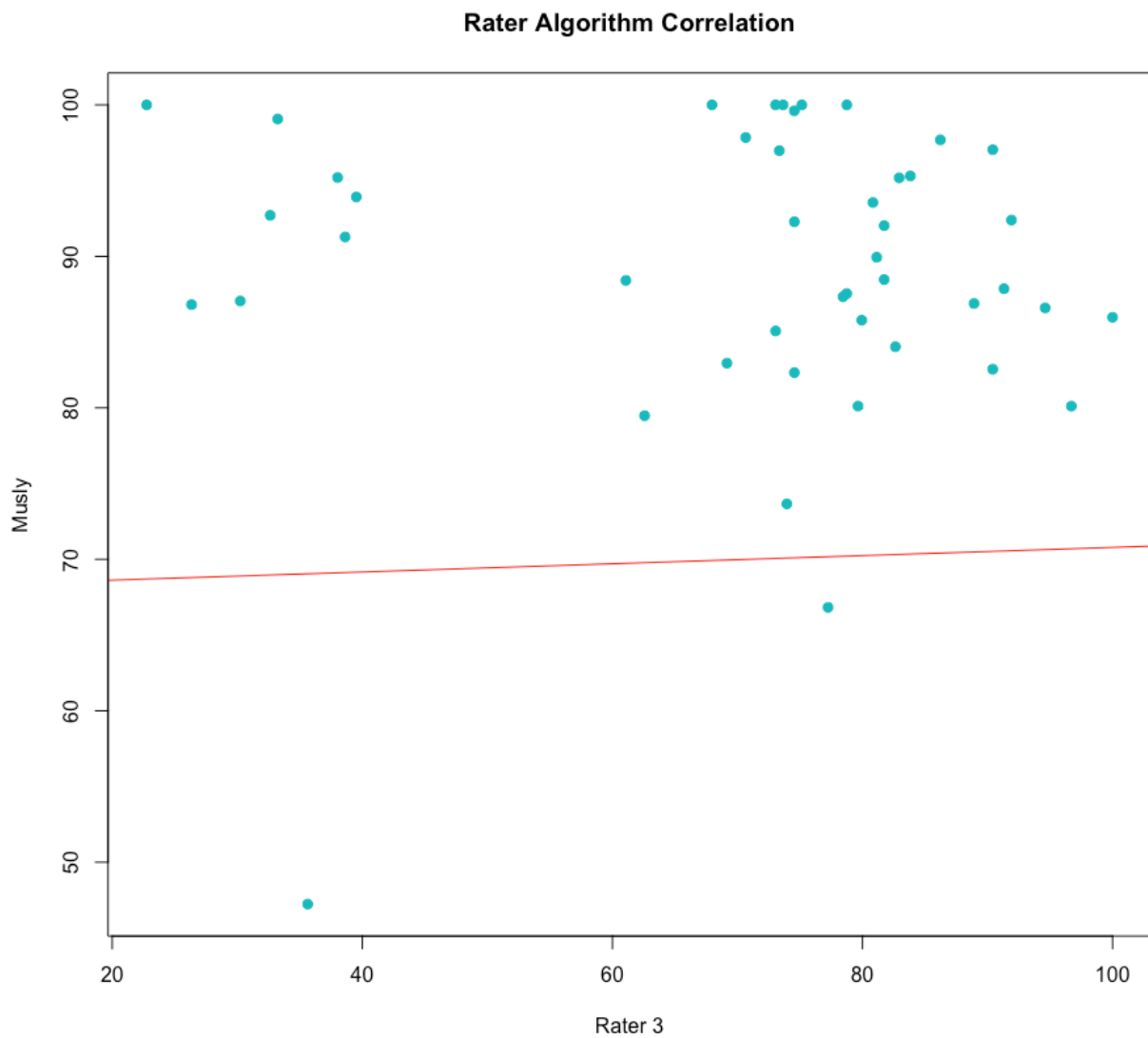
Rater Algorithm Correlation

Rater 1 - Pohle

```
Mantel statistic r: 0.292
      Significance: 0.063794

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.245 0.322 0.367 0.425
Permutation: free
Number of permutations: 10000
```
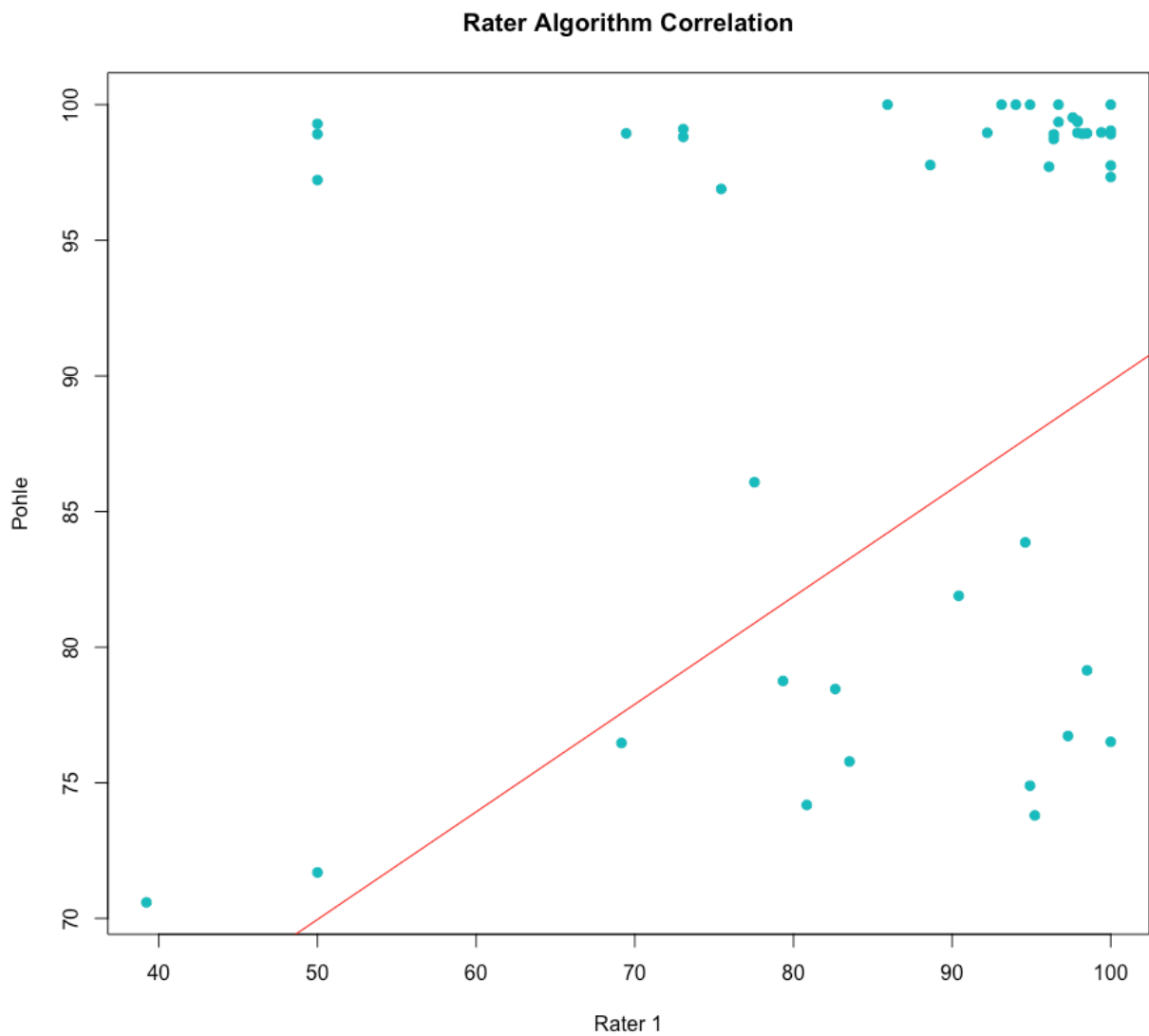
Rater Algorithm Correlation

Rater 2 - Pohle

```
Mantel statistic r: 0.04737
      Significance: 0.39076

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.223 0.287 0.338 0.390
Permutation: free
Number of permutations: 10000
```
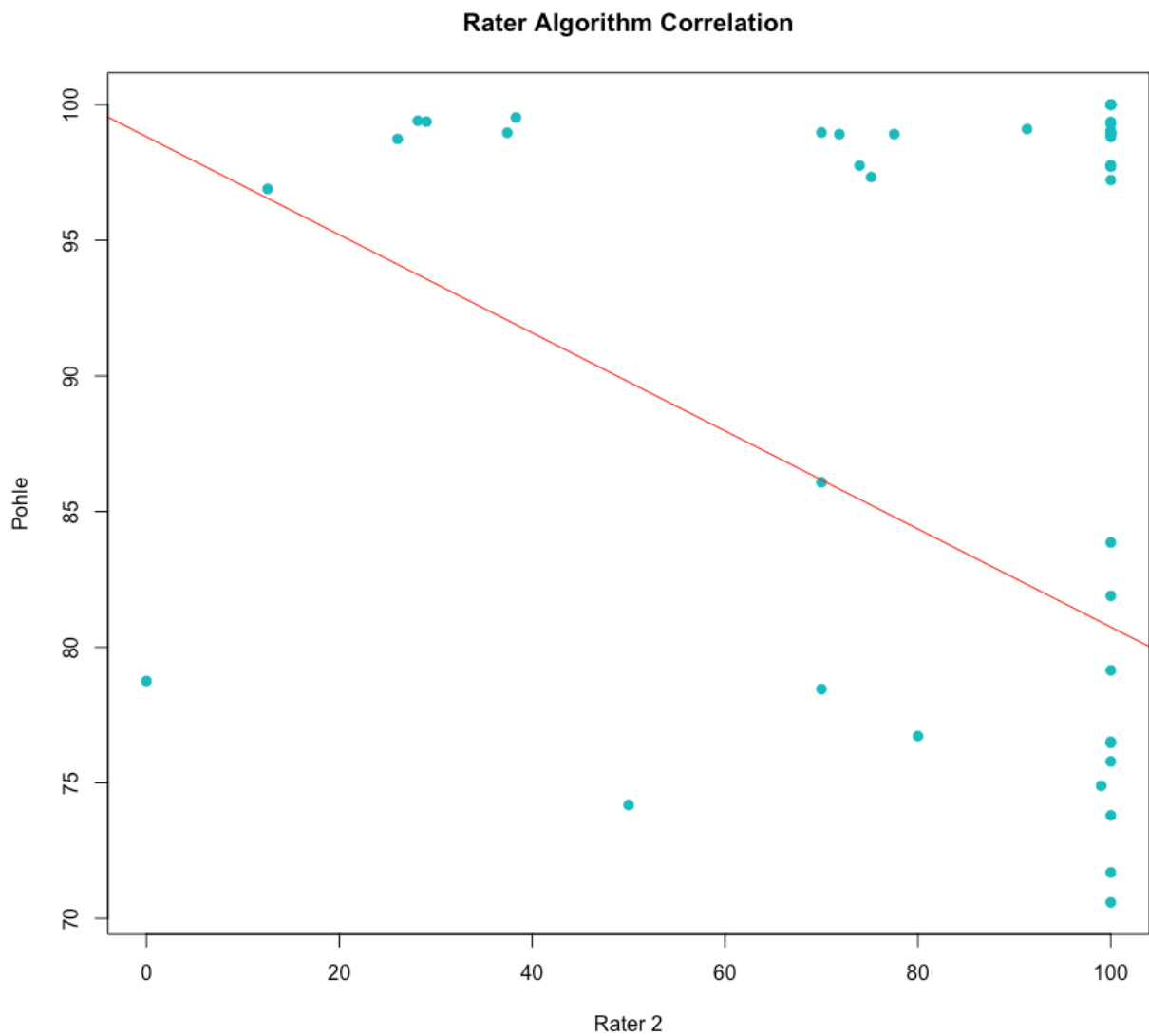
Rater Algorithm Correlation
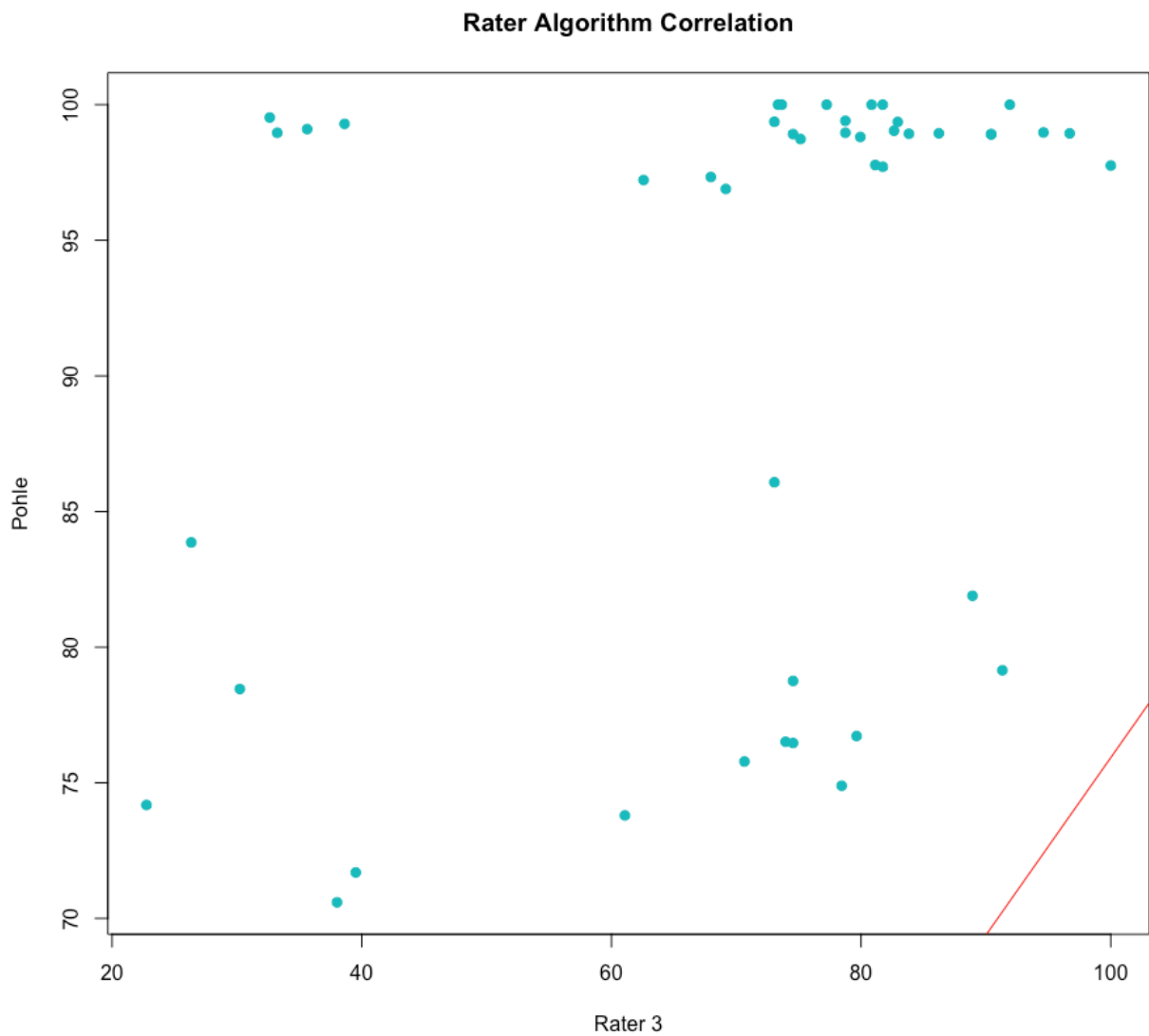
Rater 3 - Pohle

```
Mantel statistic r: 0.2812
      Significance: 0.047895

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.215 0.277 0.327 0.371
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Rater 1 - Panteli

```
Mantel statistic r: -0.01934
      Significance: 0.49445

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.283 0.364 0.417 0.477
Permutation: free
Number of permutations: 10000
```
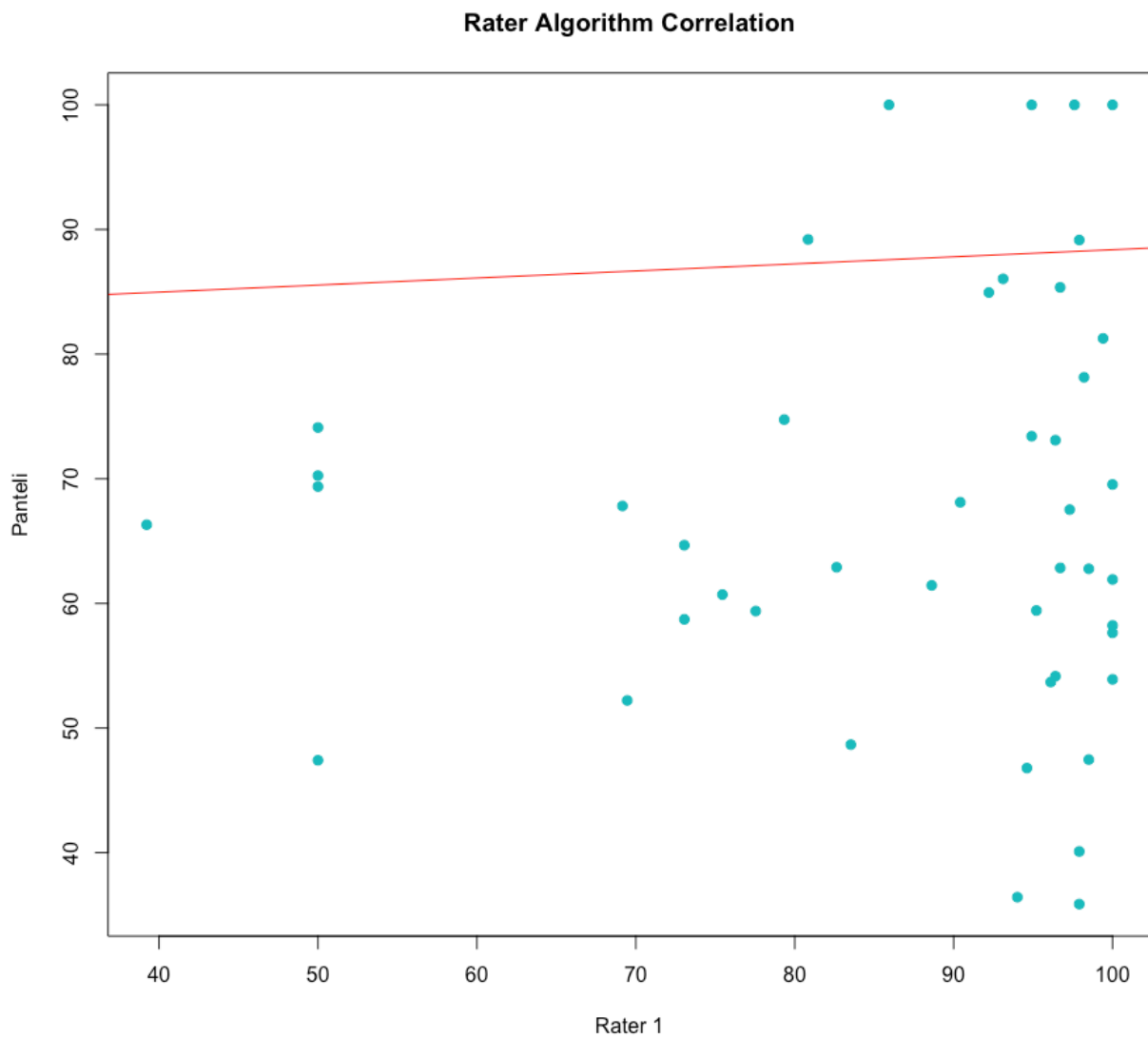
Rater Algorithm Correlation

Rater 2 - Panteli

```
Mantel statistic r: -0.06073
      Significance: 0.62014

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.247 0.310 0.364 0.416
Permutation: free
Number of permutations: 10000
```
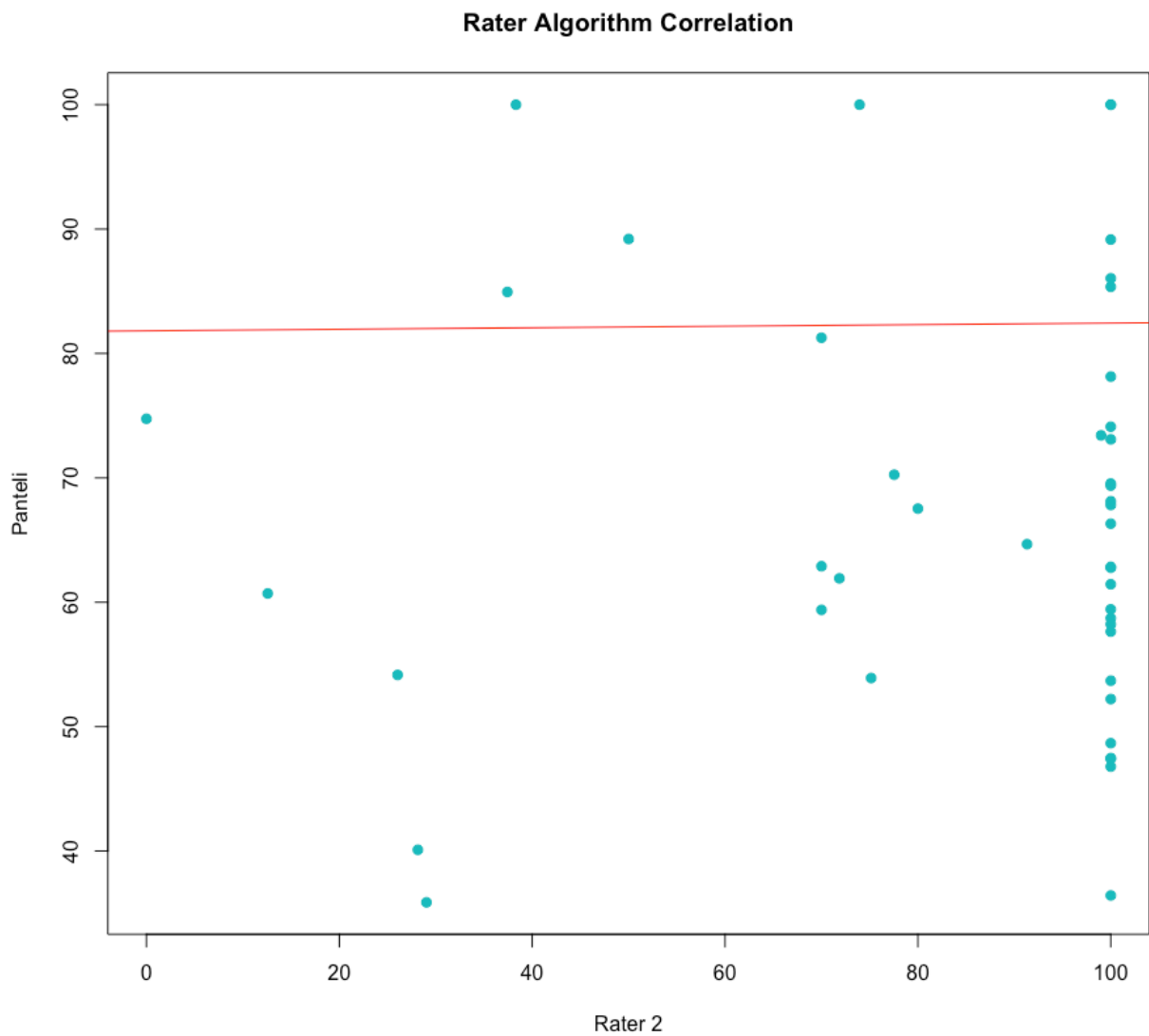
Rater Algorithm Correlation

Rater 3 - Panteli

```
Mantel statistic r: 0.09874
      Significance: 0.30107

Upper quantiles of permutations (null model):
  90%   95% 97.5%   99%
0.237 0.298 0.343 0.392
Permutation: free
Number of permutations: 10000
```
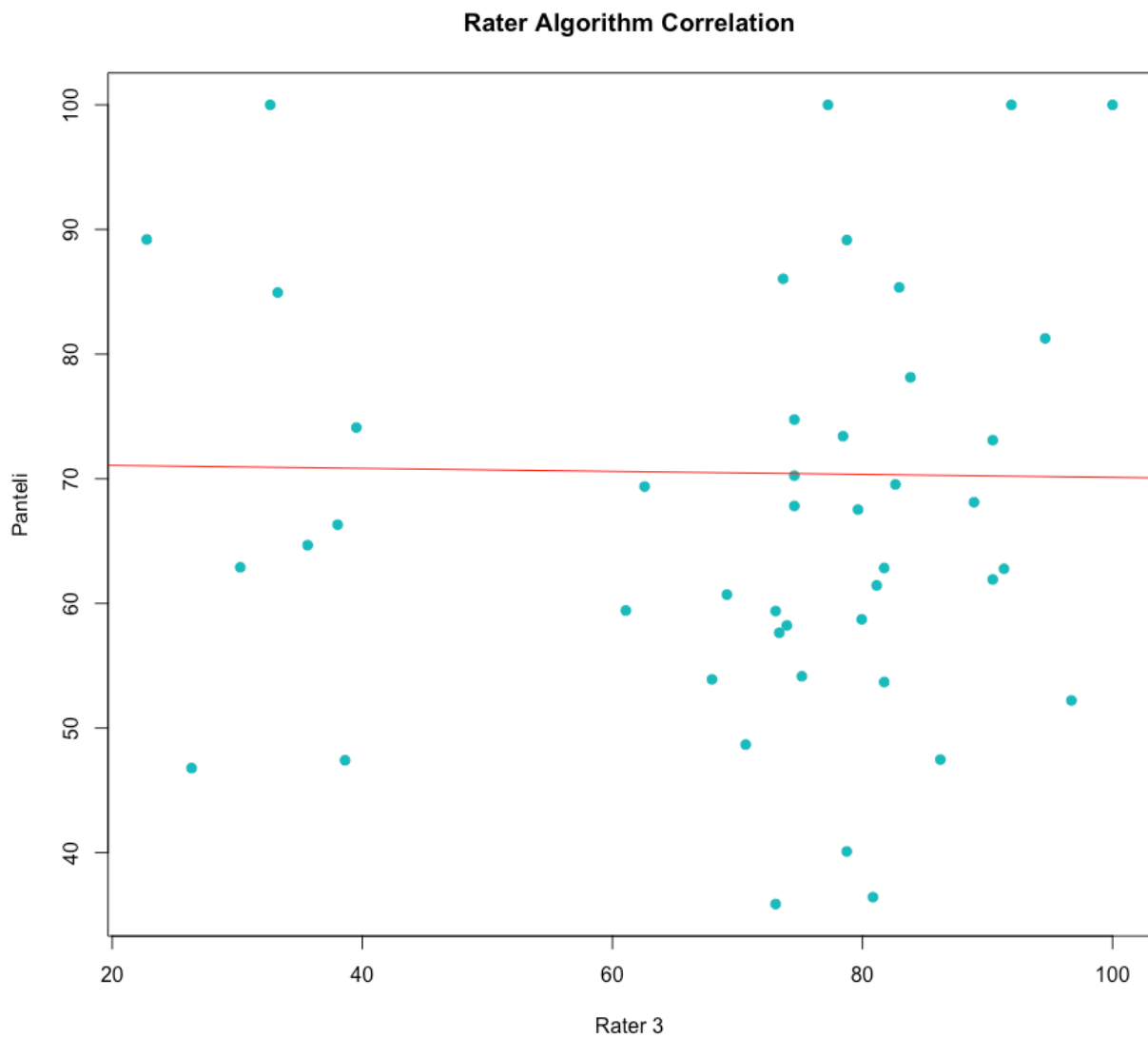
Rater Algorithm Correlation

Rater 1 - Average Algorithm
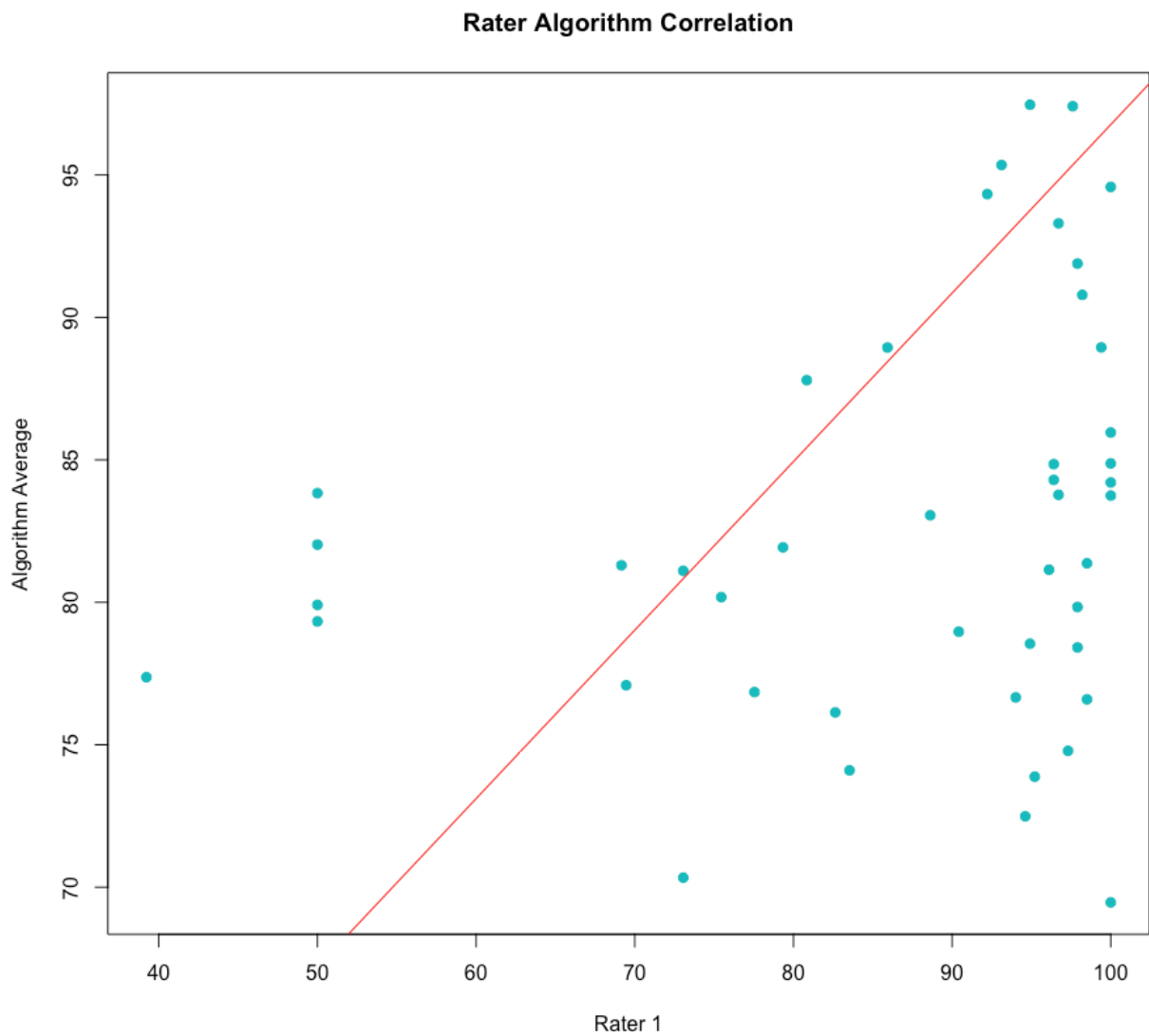
```
Mantel statistic r: 0.276
      Significance: 0.10439

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.282 0.366 0.425 0.489
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Rater 2 - Average Algorithm
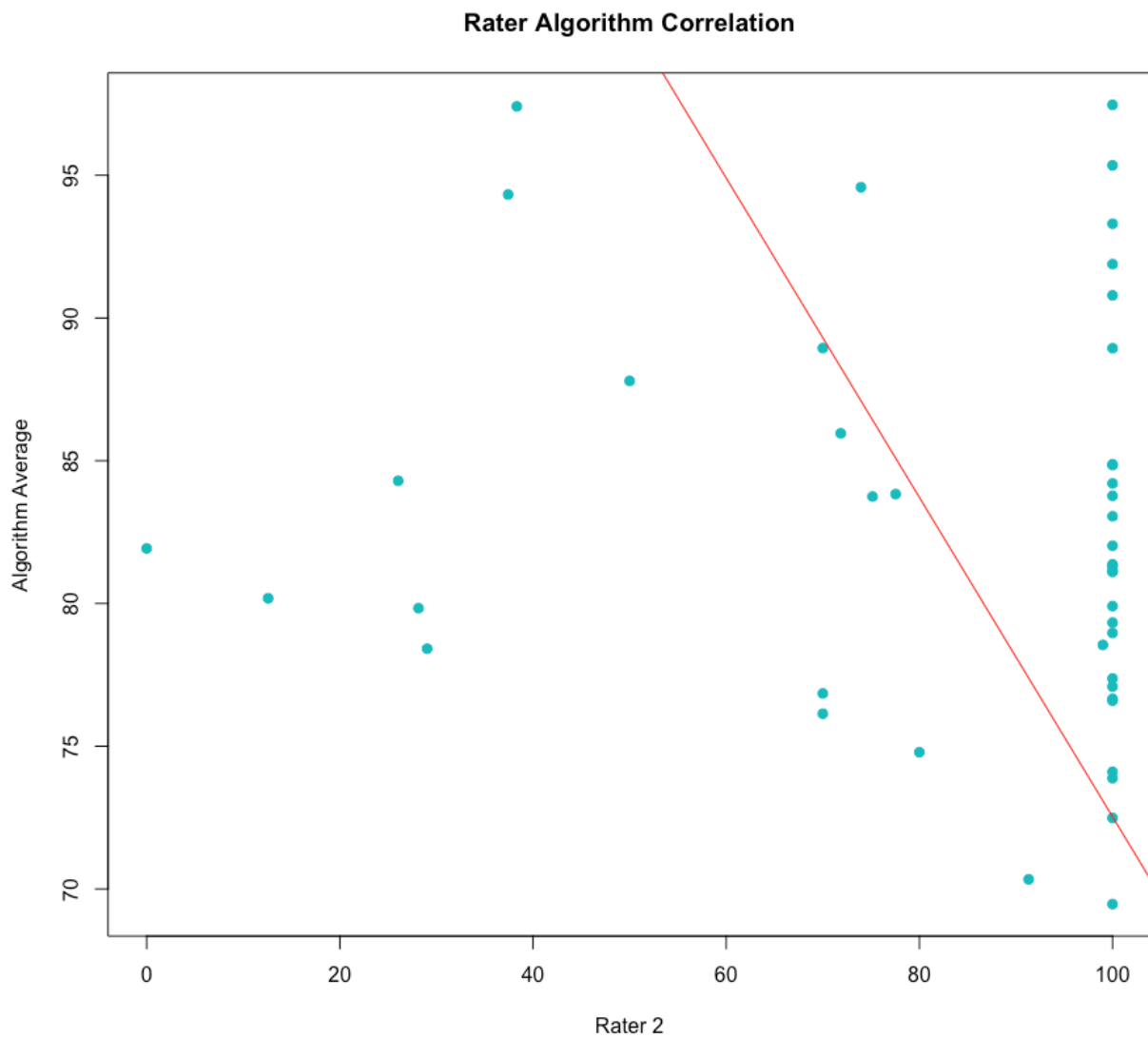
```
Mantel statistic r: -0.1039
      Significance: 0.69613

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.246 0.306 0.357 0.415
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Rater 3 - Average Algorithm

```
Mantel statistic r: 0.2757
      Significance: 0.059094

Upper quantiles of permutations (null model):
  90%    95% 97.5%   99%
0.235 0.291 0.332 0.379
Permutation: free
Number of permutations: 10000
```
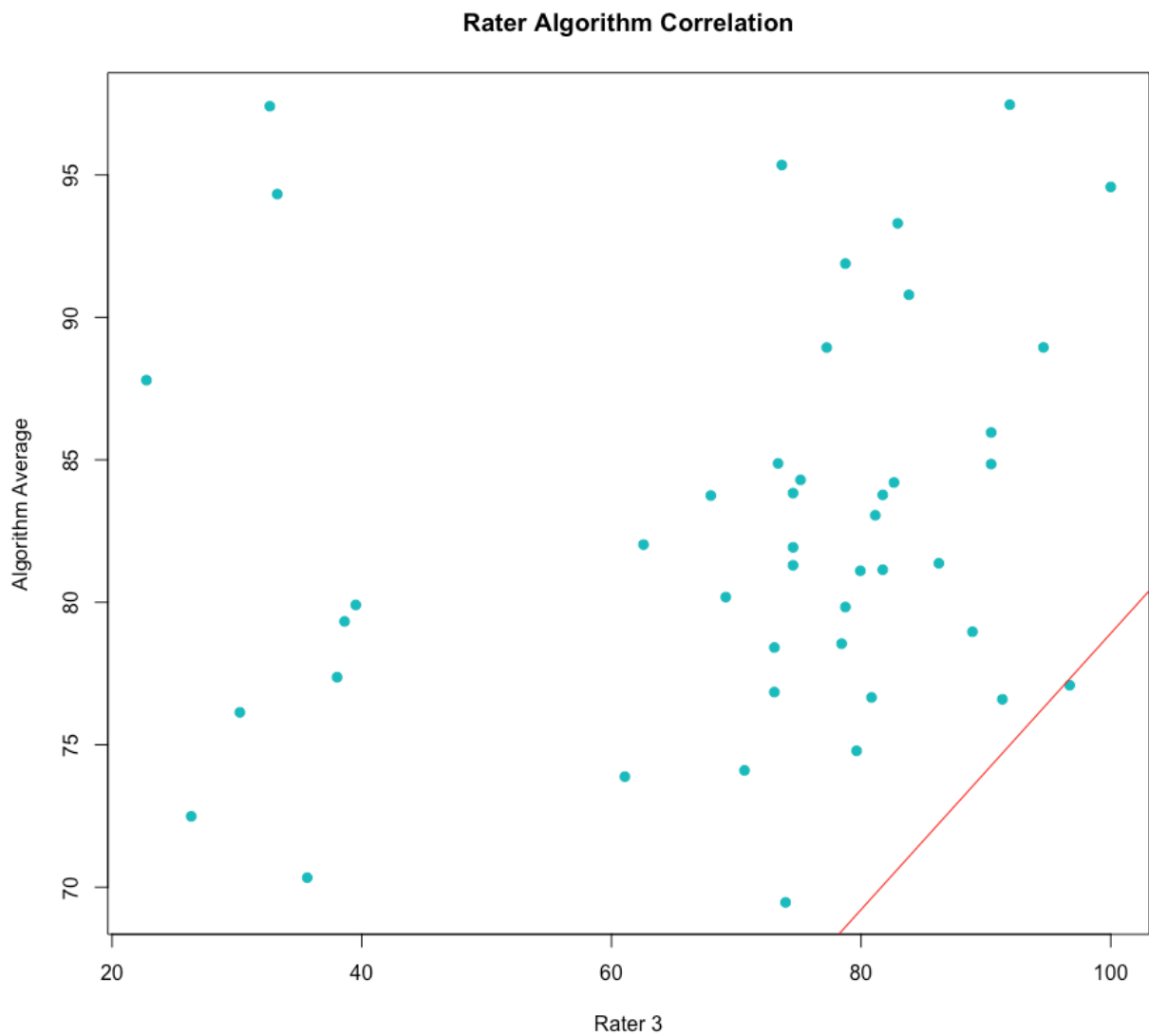
Rater Algorithm Correlation
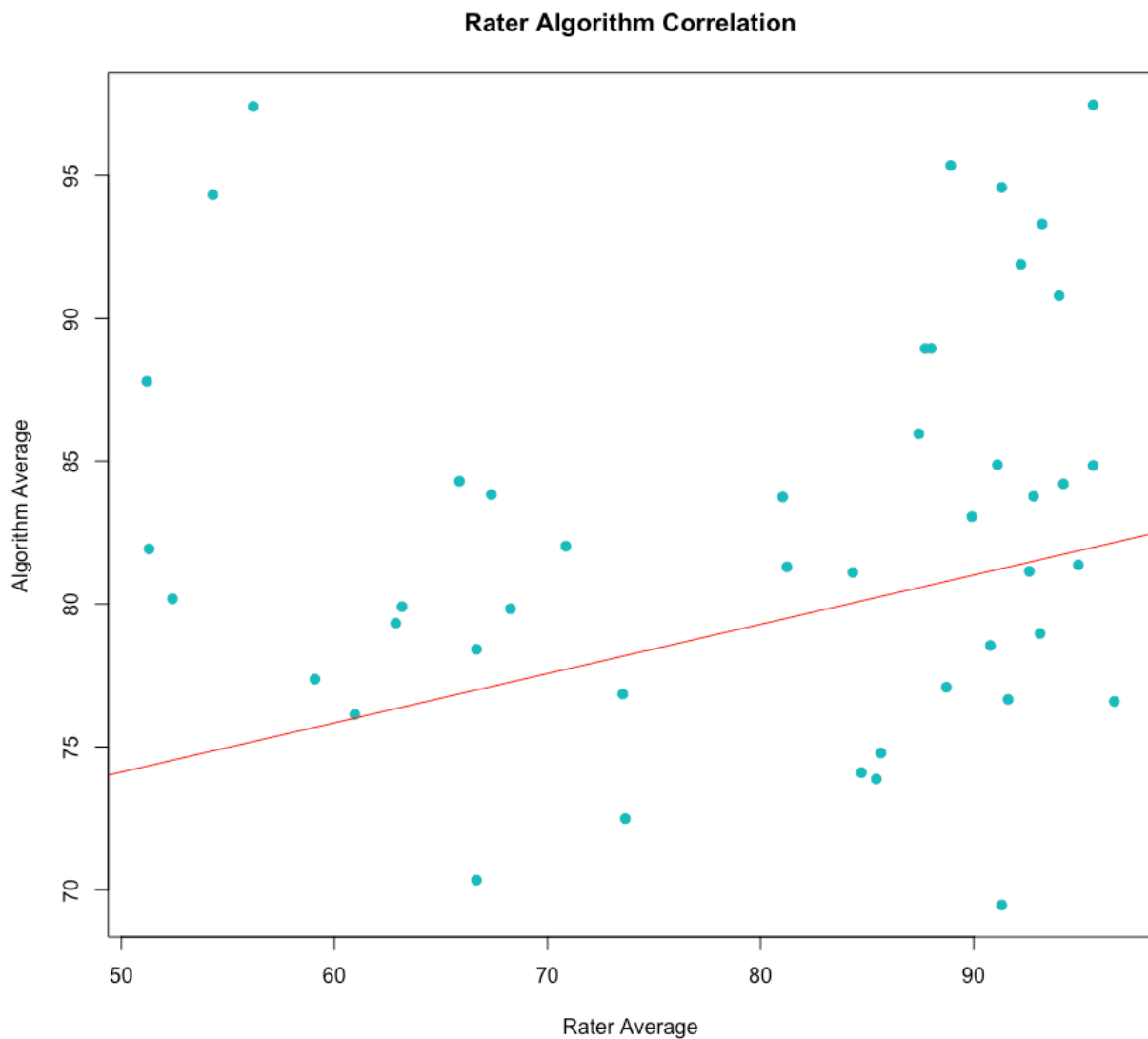
Average - Average Algorithm

```
Mantel statistic r: 0.1643
      Significance: 0.12029

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.178 0.222 0.261 0.300
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Rater 1 - Average

```
Mantel statistic r: 0.5365
      Significance: 9.999e-05

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.183 0.234 0.280 0.334
Permutation: free
Number of permutations: 10000
```

Rater 2 - Average

```
Mantel statistic r: 0.6305
      Significance: 9.999e-05

Upper quantiles of permutations (null model):
  90%   95% 97.5%   99%
0.190 0.242 0.284 0.334
Permutation: free
Number of permutations: 10000
```

Rater 3 - Average

```
Mantel statistic r: 0.7867
      Significance: 9.999e-05

Upper quantiles of permutations (null model):
  90%   95% 97.5%   99%
0.188 0.240 0.286 0.345
Permutation: free
Number of permutations: 10000
```

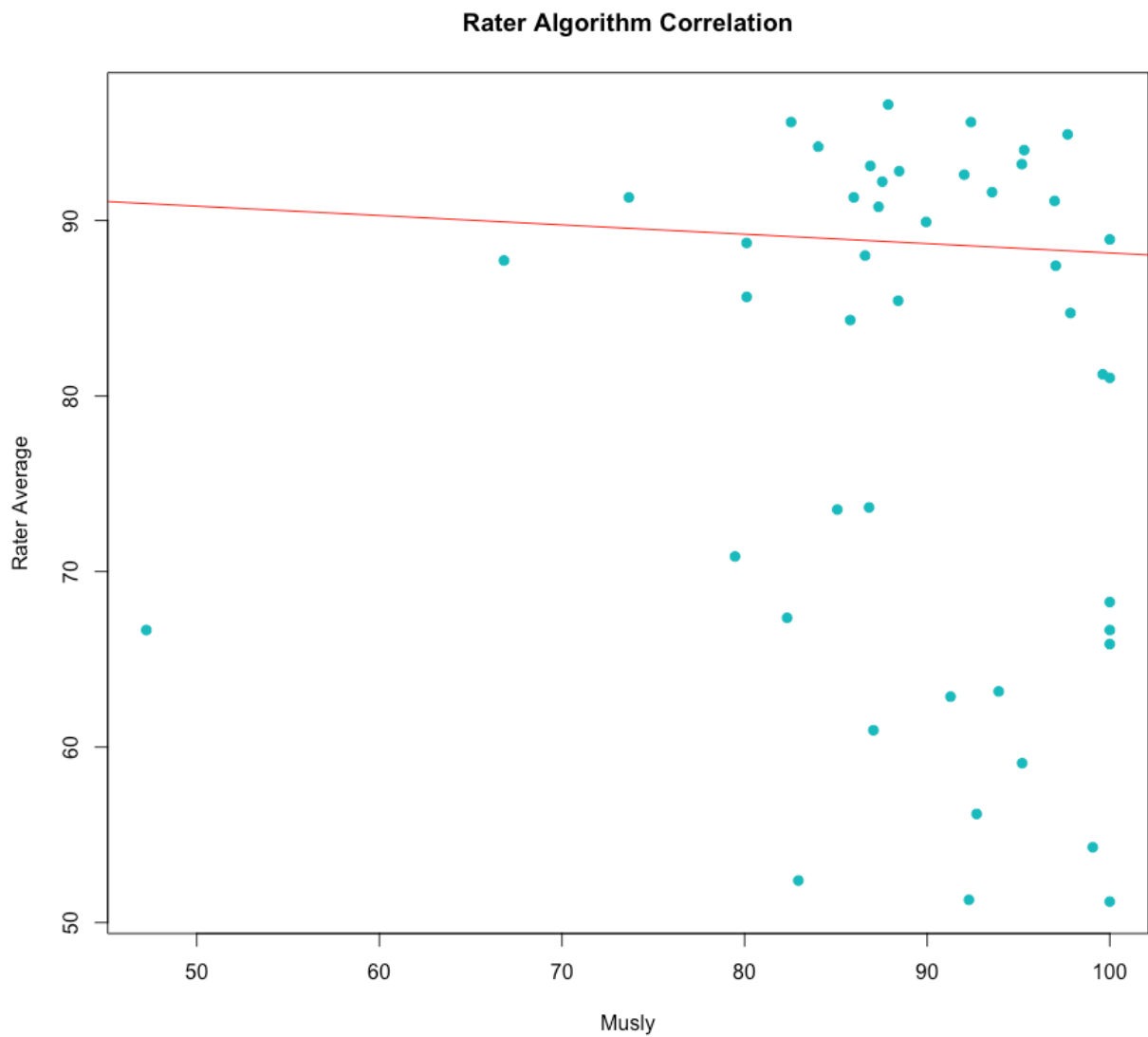## Musly - Average

```
Mantel statistic r: -0.1553
      Significance: 0.84852

Upper quantiles of permutations (null model):
  90%   95% 97.5%   99%
0.190 0.245 0.289 0.336
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Pohle - Average
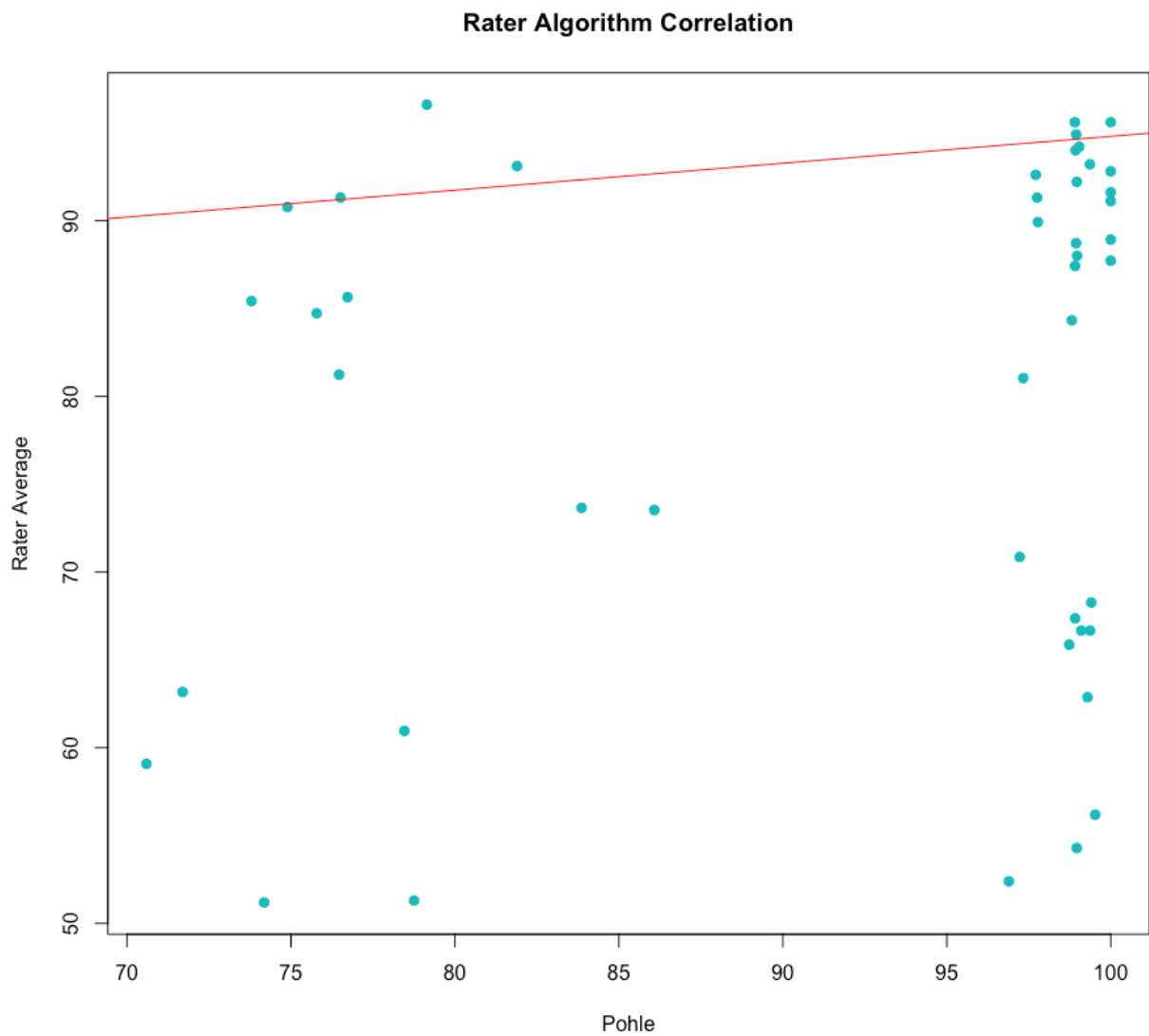
```
Mantel statistic r: 0.2794
      Significance: 0.021798

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.176 0.224 0.271 0.337
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Panteli - Average

```
Mantel statistic r: 0.06224
      Significance: 0.31507

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.177 0.219 0.254 0.294
Permutation: free
Number of permutations: 10000
```
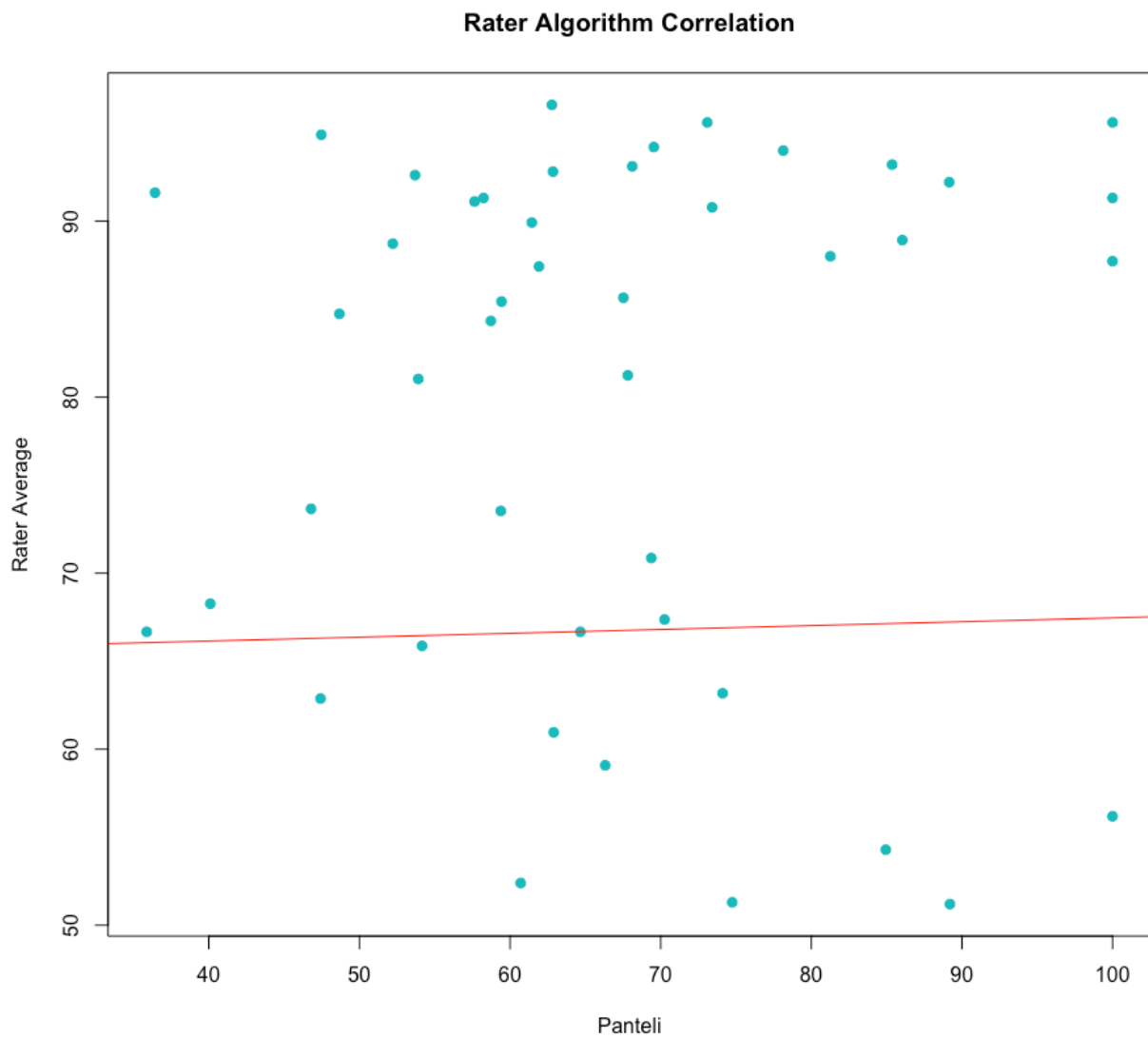
Rater Algorithm Correlation

Musly - Average Algorithm
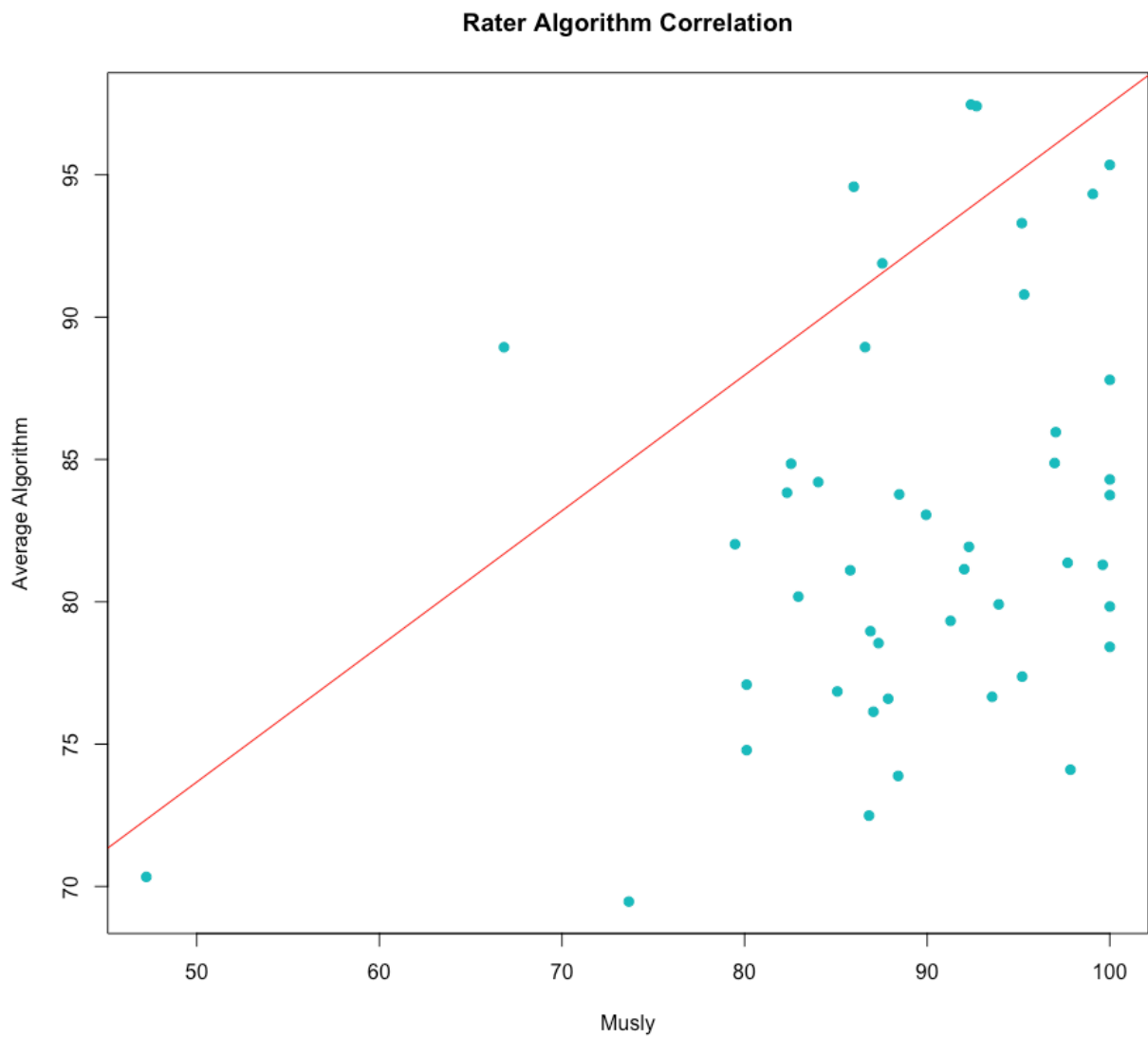
```
Mantel statistic r: 0.2792
      Significance: 0.070393

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.243 0.309 0.365 0.426
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Pohle - Average Algorithm

```
Mantel statistic r: 0.5028
      Significance: 0.016798

Upper quantiles of permutations (null model):
  90%    95% 97.5%   99%
0.318 0.406 0.469 0.530
Permutation: free
Number of permutations: 10000
```
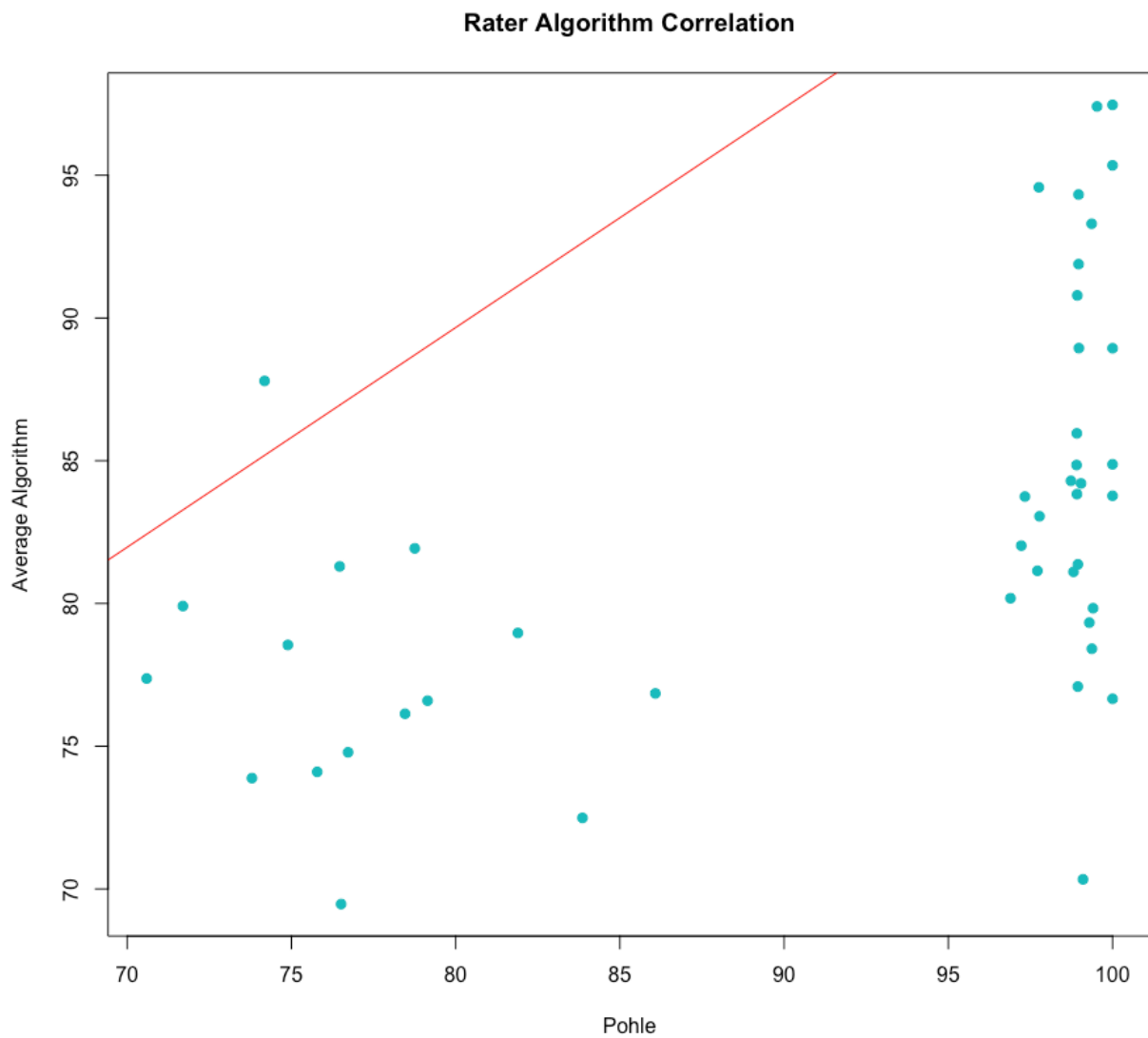
Rater Algorithm Correlation

Panteli - Average Algorithm
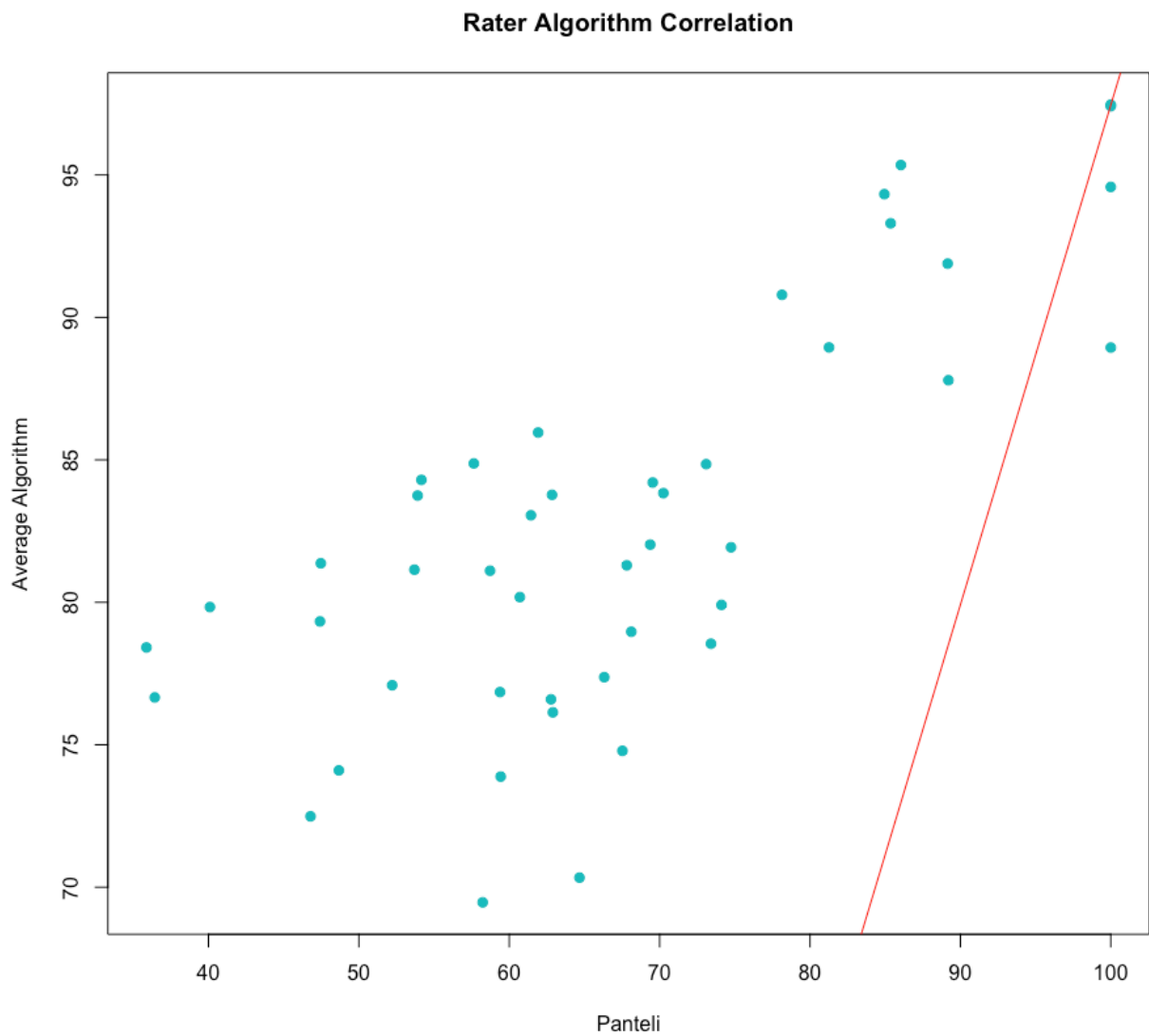
```
Mantel statistic r: 0.6667
      Significance: 0.0055994

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.377 0.482 0.556 0.624
Permutation: free
Number of permutations: 10000
```

Rater Algorithm Correlation

Musly - Pohle
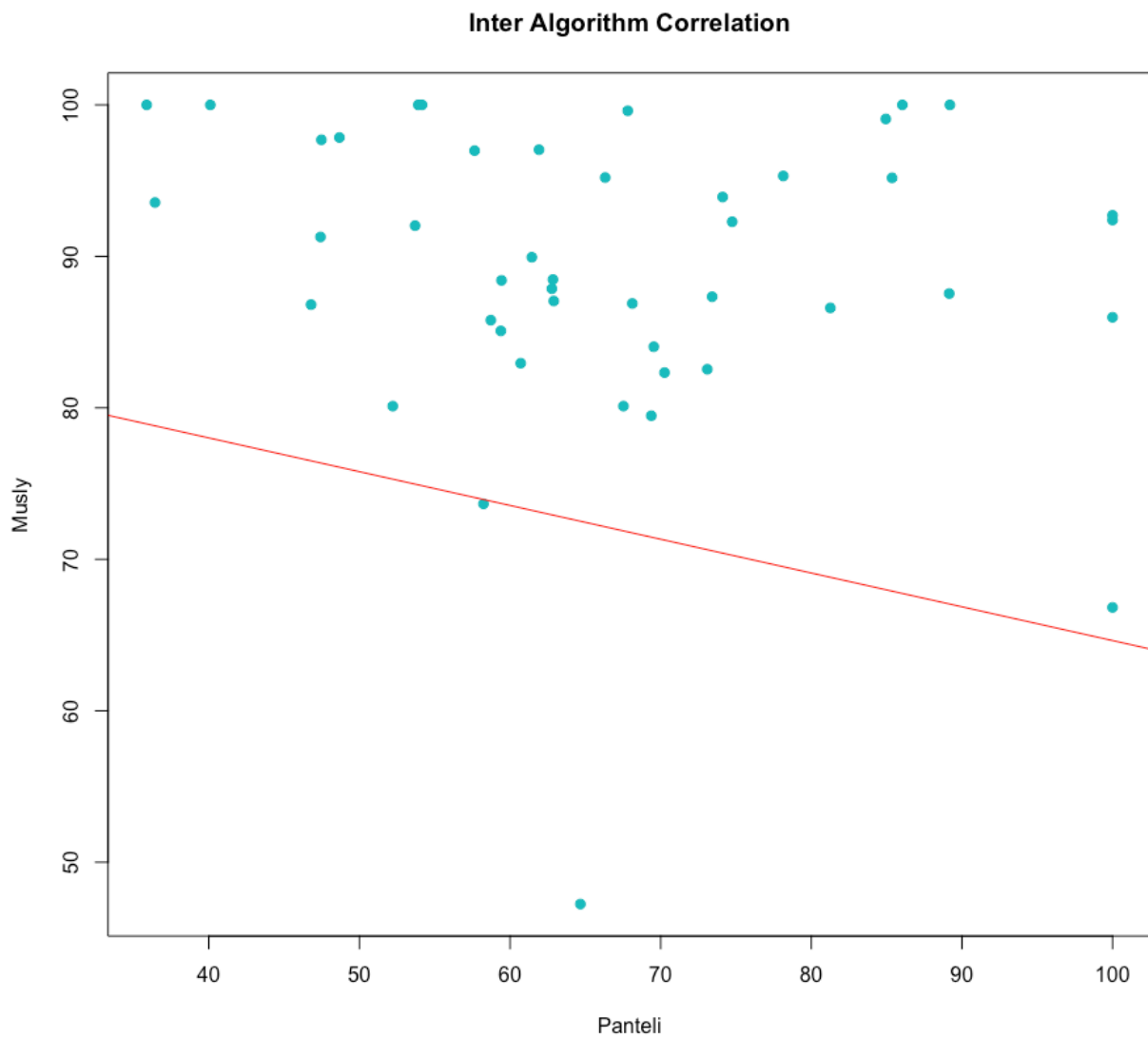
```
Mantel statistic r: -0.1366
      Significance: 0.75722

Upper quantiles of permutations (null model):
  90%   95% 97.5%   99%
0.244 0.310 0.367 0.428
Permutation: free
Number of permutations: 10000
```

Inter Algorithm Correlation

Pohle - Panteli

```
Mantel statistic r: 0.05318
      Significance: 0.38406

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.322 0.414 0.475 0.543
Permutation: free
Number of permutations: 10000
```
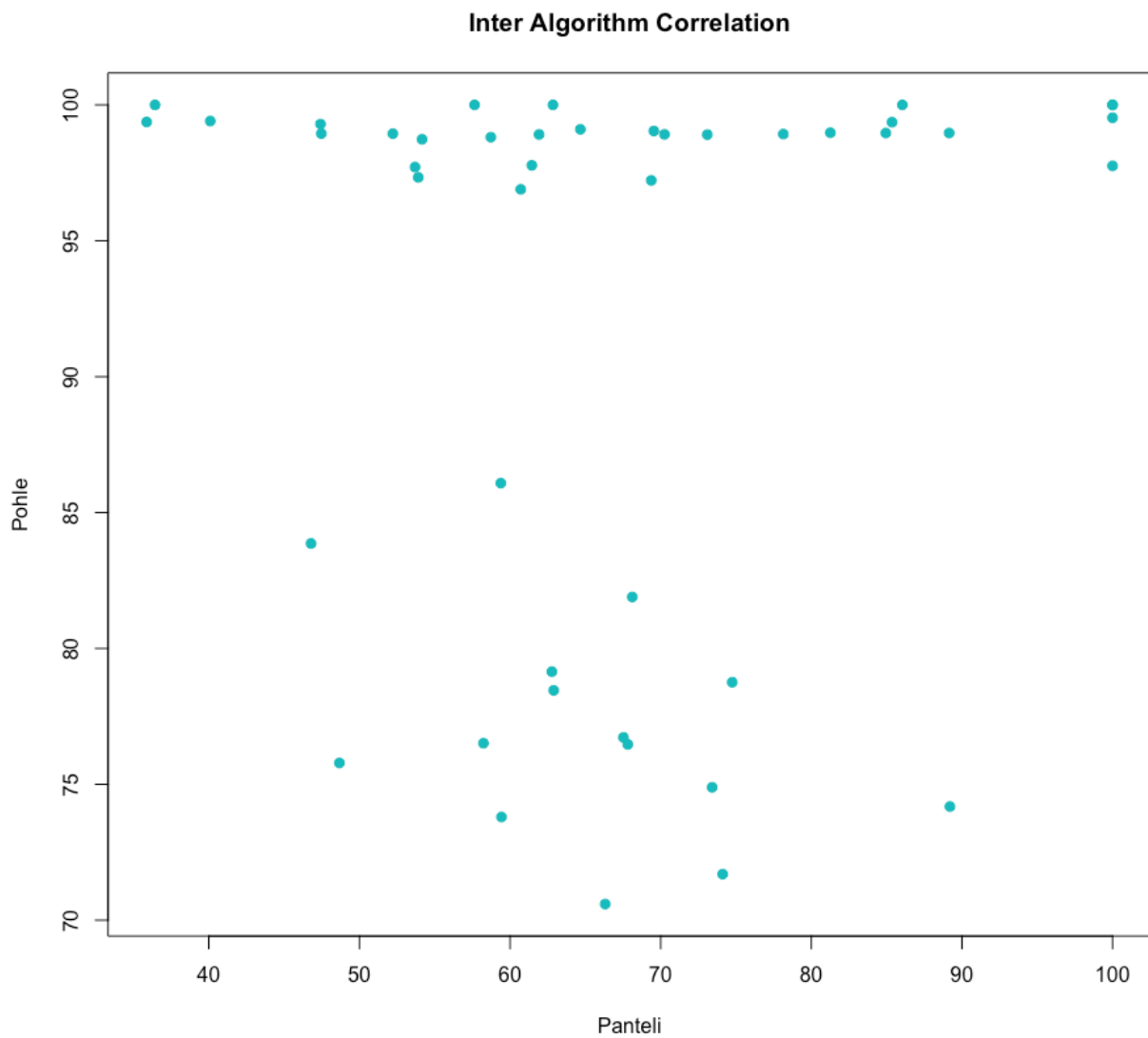
Inter Algorithm Correlation

Musly - Panteli

```
Mantel statistic r: -0.1366
      Significance: 0.76782

Upper quantiles of permutations (null model):
  90%    95% 97.5%    99%
0.239 0.308 0.366 0.425
Permutation: free
Number of permutations: 10000
```
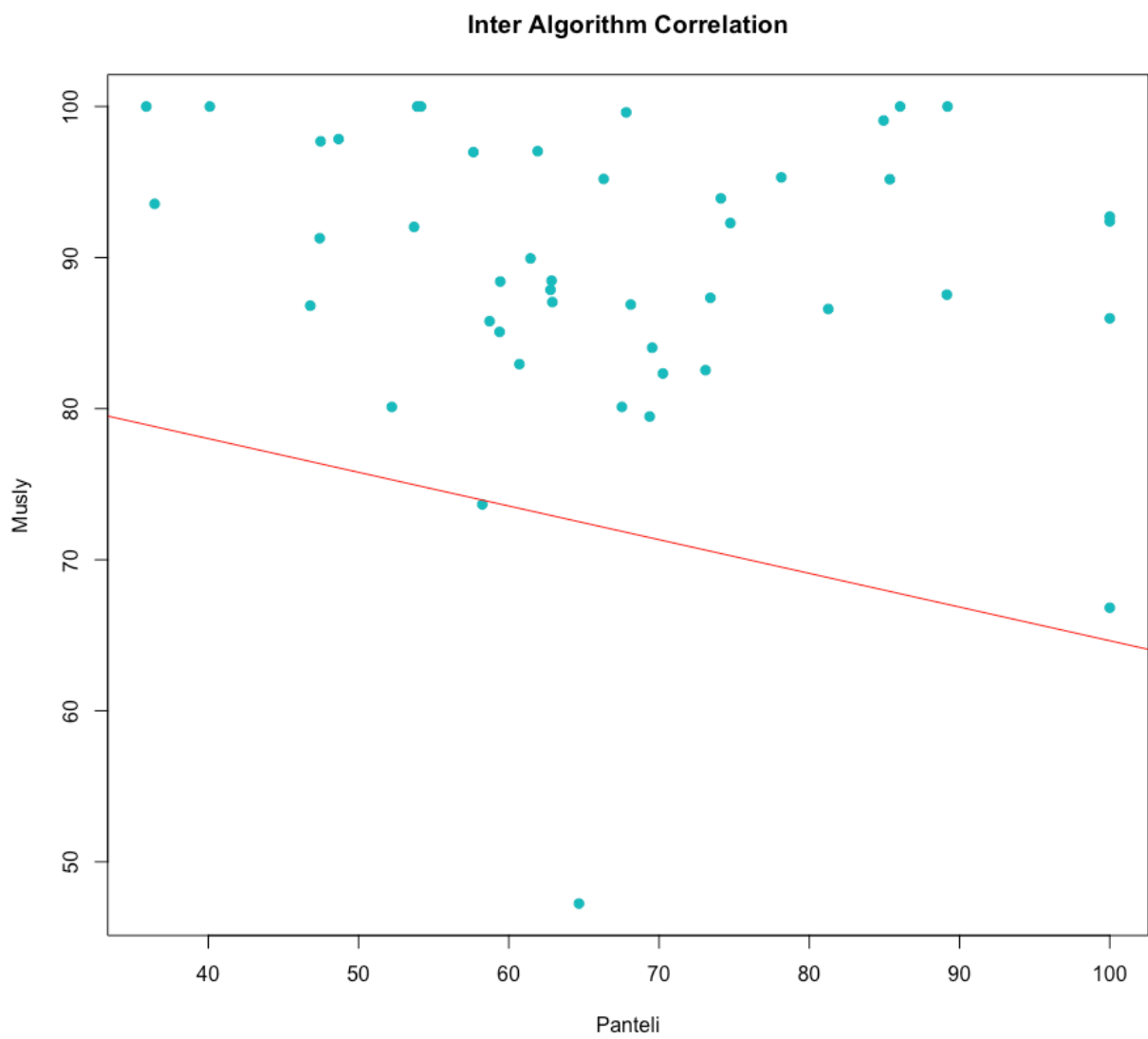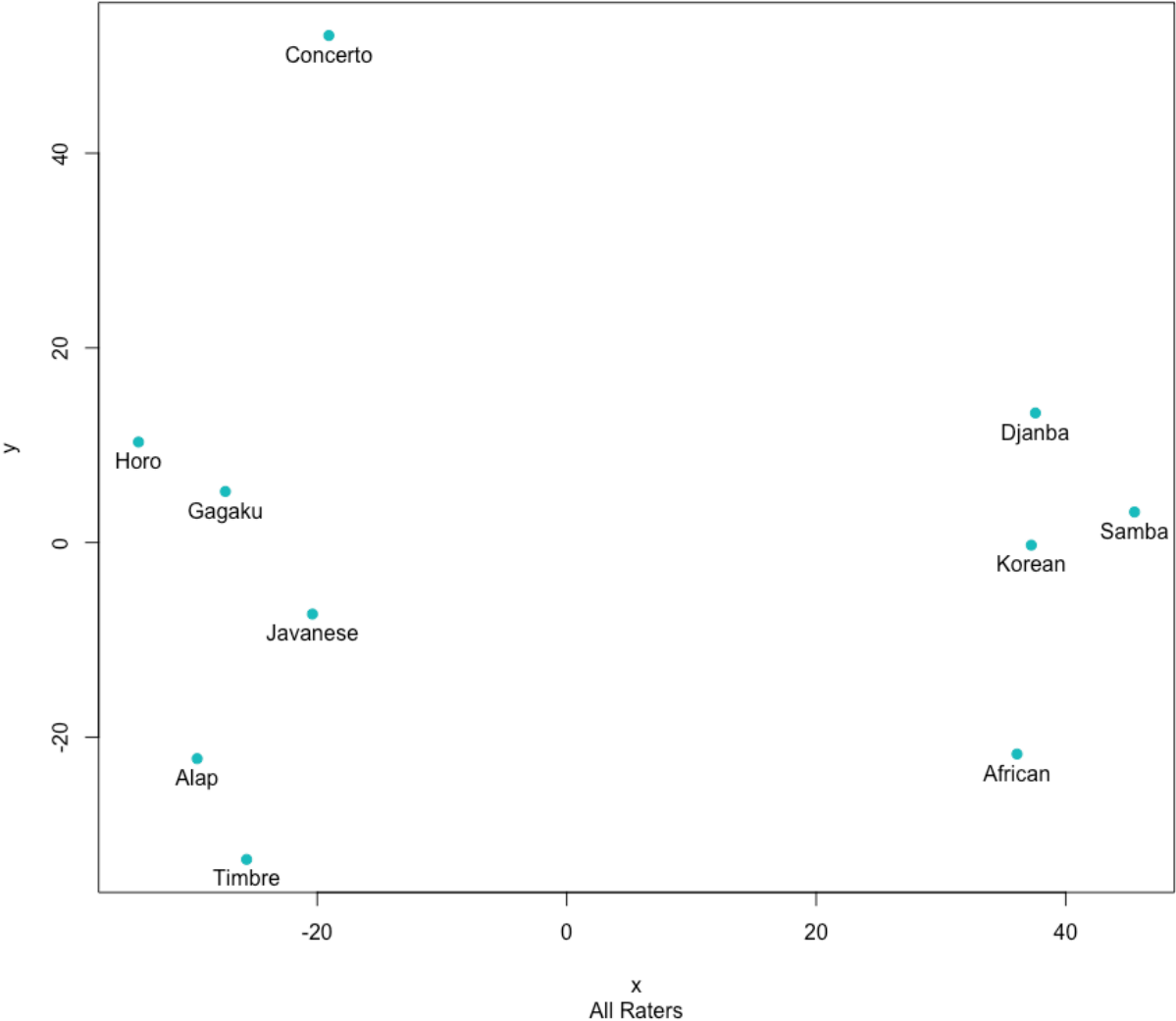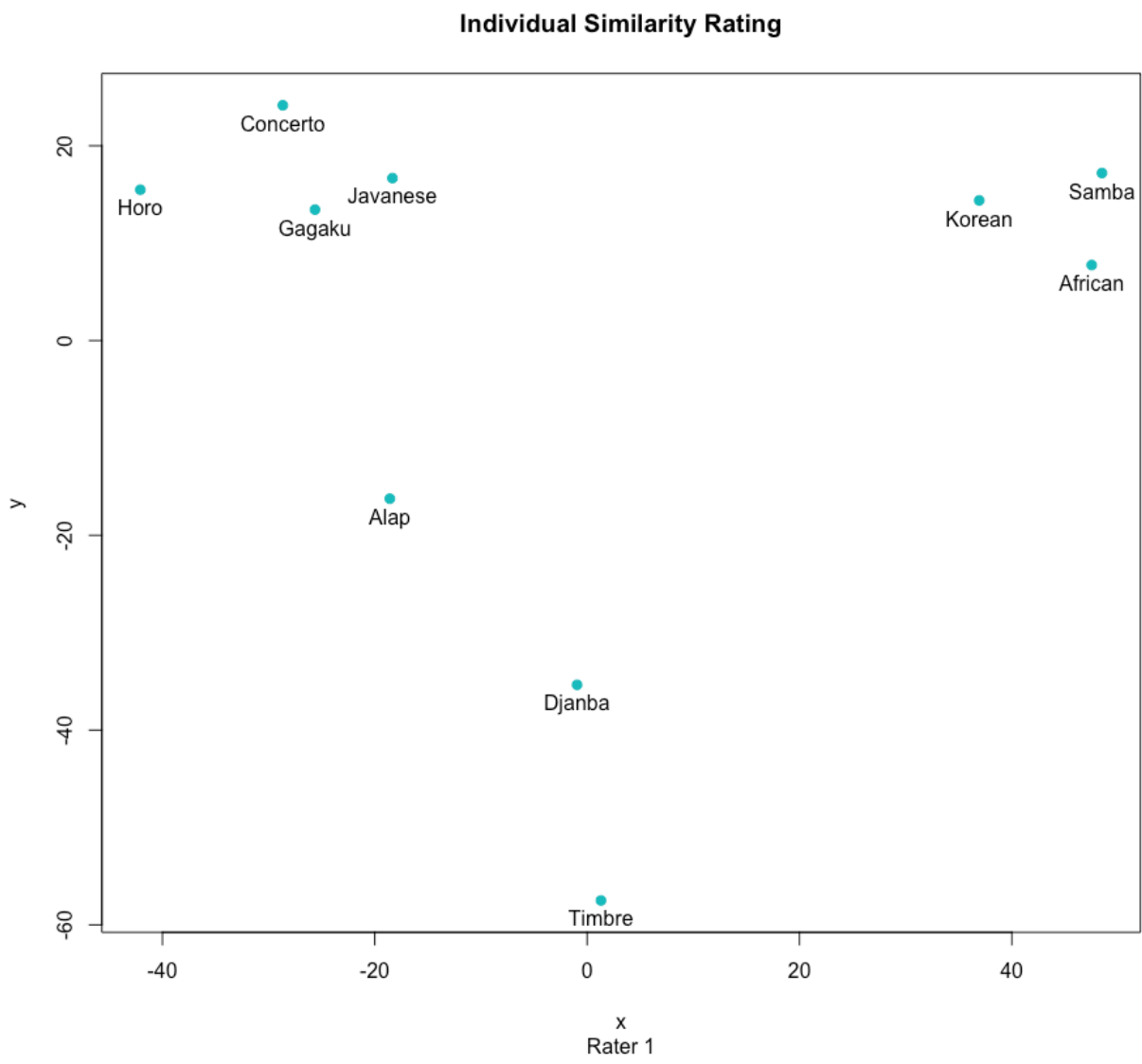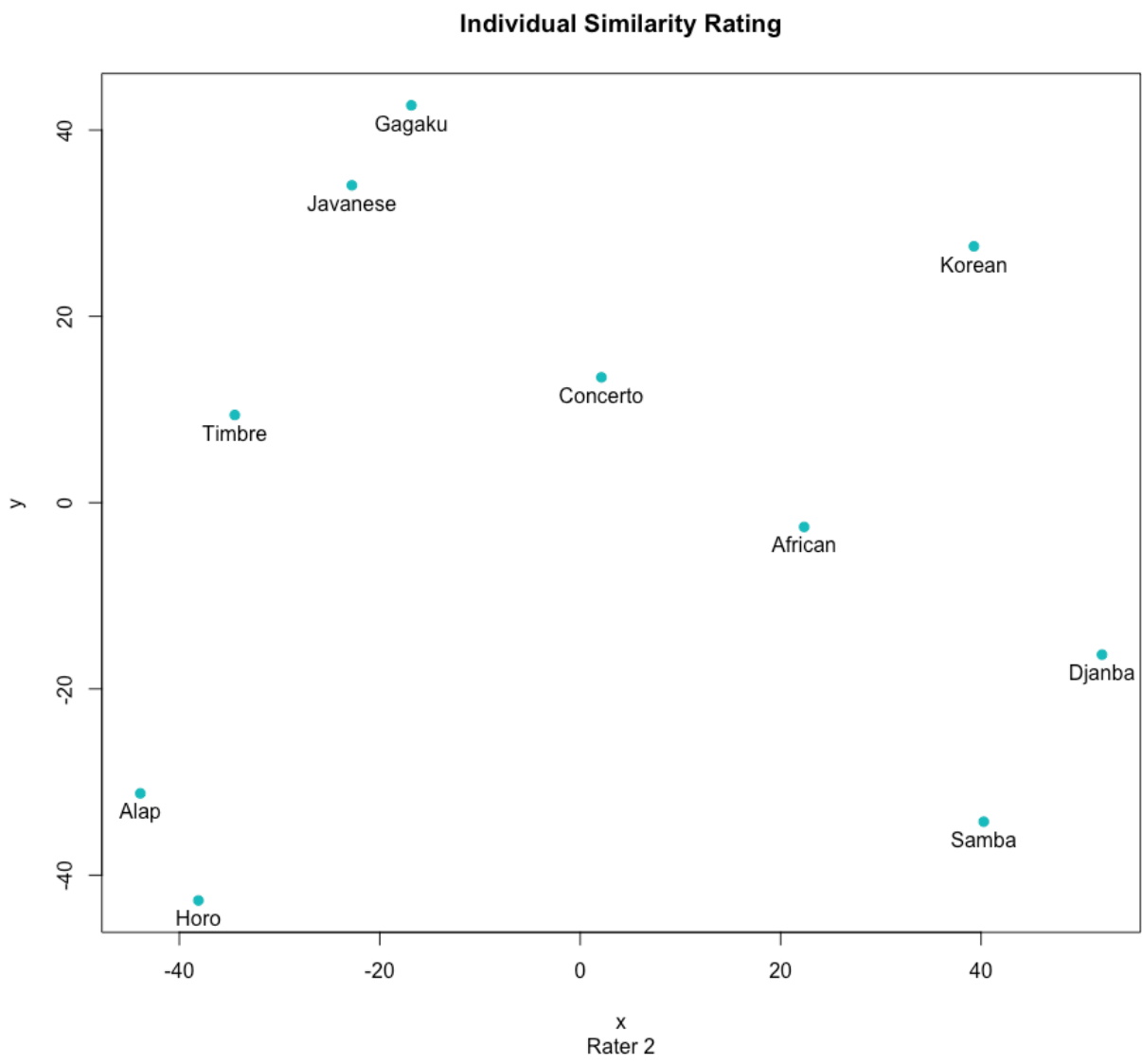
Inter Algorithm Correlation

Average

Average Similarity Rating

Rater 1

Individual Similarity Rating

Rater 2

Individual Similarity Rating

Rater 2

Rater 3

Individual Similarity Rating