A08_Hoermann

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A08

Produce the 10,000 pairs:

```
i = c(1:10000)
x = c(1:9)
calcor <- function(i) {
  y = sample(x, 9);
  c(cor(x, y, method="kendall"),
  cor(x, y, method="spearman"))
}
rk = sapply(i, calcor)
```

Mean and standard deviation Kendall:

```
mean(rk[1,])
```

```
## [1] 0.0002166667
```

```
sd(rk[1,])
```

```
## [1] 0.2630409
```

Mean and standard deviation Sperman:

```
mean(rk[2,])
```

```
## [1] -0.001235
```

```
sd(rk[2,])
```

```
## [1] 0.3498277
```

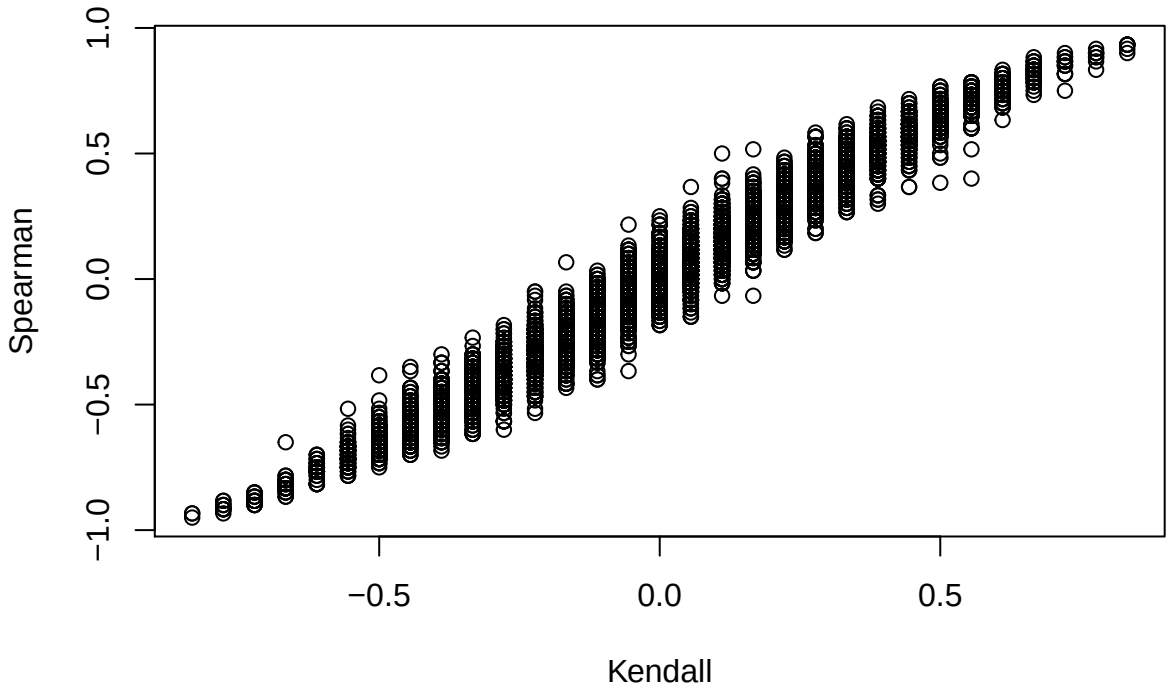
Correlation of spearman and kandle after pearson:

```
cor(rk[1,], rk[2,], method="pearson")
```

```
## [1] 0.9822807
```

Plot:

```
plot(rk[1,], rk[2,], xlab = "Kendall", ylab = "Spearman")
```



Conclusion

The higher standard deviation and mean of spearman is pointing out that it varies more, which is due to the fact that spearman tends to "overreact". The correlation after pearson of the 10,000 samples show that the ranks correlate nearly perfectly, which is expected as both methods measure the same.