

Fehner correlation @ model

$$(1) \quad \rho_F(x, y) = \frac{1}{n} \sum_{i=1}^n \operatorname{sgn}(x_i - \bar{x}) \cdot \operatorname{sgn}(y_i - \bar{y}) = \frac{C - H}{C + H}$$

where $C + H = n$ and

$C = \sum_{i \neq j} \{ \operatorname{sgn}(x_i - \bar{x}) = \operatorname{sgn}(y_i - \bar{y}) \}$ — number of pairs with the same sign of deviation from the [mean value](#)

$H = \sum_{i \neq j} \{ \operatorname{sgn}(x_i - \bar{x}) \neq \operatorname{sgn}(y_i - \bar{y}) \}$ — number of pairs with the opposite sign of deviation from the [mean value](#)

The [Kendall correlation coefficient](#) is similar to [Spearman correlation coefficient](#) in nature but sometimes has advantage by a more reliable pick up a correlation in noisy data.

See also

[Formal science](#) / [Mathematics](#) / [Statistics](#) / [Statistical correlation](#)

[[Statistical correlation metrics @ review](#)] [[Pearson correlation](#)] [[Spearman Correlation](#)] [[Kendall correlation](#)]