

Nonparametric Tests for Independence in R: Table 1 from Herwartz & Maxand (2018)

Table 1: R packages and functions corresponding to the procedures described in Section 3 of Herwartz & Maxand (2018).

| | classical | spatial rank | empirical copula | distance covariance |
|---|---------------------------------|--|--|---|
| R package | <i>Hmisc</i> (Harrell, 2015) | <i>SpatialNP</i> (Sirchia et al., 2013) | <i>copula</i> (Hofert et al., 2015) | <i>energy</i> (Rizzo & Szekely, 2014) <i>steadyICA</i> (Risk et al., 2015) |
| R function for distinct dependence levels | | | | |
| bivariate | <code>hoeffd</code> (d) | <code>sr.indep.test</code> (sr) | <code>indepTest</code> (B) | <code>indep.test</code> ($dCov$) |
| mutual | Wilks' Lambda (L) | Fisher comb. of sr | <code>indepTest</code> (W, B) | <code>permTest</code> ($dCov$) |
| groupwise | Wilks' Lambda (L) | <code>sr.indep.test</code> (sr) | <code>multIndepTest</code> (B) | <code>indep.test</code> ($dCov$) |

References

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