

index.G2(clusterSim)

**G2 internal cluster quality index**  
– Baker & Hubert adaptation of Goodman & Kruskal's Gamma statistics

$$G2(u) = \frac{s(+)-s(-)}{s(+)+s(-)},$$

$$G2(u) \in [-1, 1],$$

where:  $s(+)$  – number of concordant comparisons (within-cluster dissimilarity is strictly less than a between-cluster dissimilarity),

$s(-)$  – number of discordant comparisons (within-cluster dissimilarity is strictly greater than a between-cluster dissimilarity),

$u$  – number of clusters ( $u = 2, \dots, n-1$ ),

$n$  – number of objects.

The value of  $u$ , which maximizes  $G2(u)$ , is regarded as specifying the number of clusters.

**References**

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