pair-wise distance or shortest-path length between nodes

```
[0, 1, 1, 2, 3, 4, 2, 3, 4, 4]

[1, 0, 1, 1, 2, 3, 1, 2, 3, 3]

[1, 1, 0, 1, 3, 4, 2, 3, 4, 4]

[2, 1, 1, 0, 3, 4, 2, 3, 4, 4]

[3, 2, 3, 3, 0, 2, 1, 1, 1, 1]

[4, 3, 4, 4, 2, 0, 2, 1, 1, 1]

[2, 1, 2, 2, 1, 2, 0, 1, 2, 2]

[3, 2, 3, 3, 1, 1, 1, 0, 1, 1]

[4, 3, 4, 4, 1, 1, 2, 1, 0, 2]

[4, 3, 4, 4, 1, 1, 2, 1, 2, 0]
```

association

dissimilarity or distance metric

 $\begin{array}{c} 0.0\ 0.2355\ 0.1392\ 0.3445\ 1.689\ 1.7116\ 1.0463\ 1.8329\ 1.6906\ 1.6906\\ 0.2355\ 0.0\ 0.1267\ 0.2355\ 1.6079\ 1.8904\ 0.9189\ 1.8078\ 1.8326\ 1.8326\\ 0.1392\ 0.1267\ 0.0\ 0.1392\ 1.8265\ 1.8208\ 1.1821\ 1.9891\ 1.8015\ 1.8015\\ 0.3445\ 0.2355\ 0.1392\ 0.0\ 1.689\ 1.7116\ 1.0463\ 1.8329\ 1.6906\ 1.6906\ 1.689\ 1.6079\ 1.8265\ 1.689\ 0.0\ 0.4455\ 0.5539\ 0.1436\ 0.4455\ 0.4455\\ 1.7116\ 1.8904\ 1.8208\ 1.7116\ 0.4455\ 0.0\ 1.1465\ 0.2304\ 0.3046\ 0.3046\\ 1.0463\ 0.9189\ 1.1821\ 1.0463\ 0.5539\ 1.1465\ 0.0\ 0.7004\ 0.7902\ 0.7902\\ 1.8329\ 1.8078\ 1.9891\ 1.8329\ 0.1436\ 0.2304\ 0.7004\ 0.0\ 0.2304\ 0.2304\\ 1.6906\ 1.8326\ 1.8015\ 1.6906\ 0.4455\ 0.3046\ 0.7902\ 0.2304\ 0.3046\ 0.0\\ \end{array}$