Package ‘tpe’

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Type Package
Title Tree preserving embedding
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Description This package implements the greedy approximation for tree preserving embedding.
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**tpe-package**

*Tree preserving embedding*

**Description**

This package implements the greedy approximation for tree preserving embedding.

**Details**

The functions `tpe1d` and `tpe2d` find one-dimensional and two-dimensional tree preserving embeddings respectively.

**References**


**digits**

*Handwritten digits*

**Description**

Euclidean distances between 1000 handwritten digits.

**Usage**

`data(digits)`

**Format**

A `dist` object with the dissimilarity matrix.

**References**

**protein**

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**Description**
Inverse sequence alignment scores from the basic local alignment search tool (BLAST) between 124 protein sequences.

**Usage**
data(protein)

**Format**
A `dist` object with the dissimilarity matrix.

**References**

**radar**

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**Description**
Euclidean distances between 351 radar signals.

**Usage**
data(radar)

**Format**
A `dist` object with the dissimilarity matrix.

**References**
**tpe1d**

*One-dimensional tree preserving embedding*

**Description**

Finds a one-dimensional tree preserving embedding of a dissimilarity matrix.

**Usage**

```
 tpe1d(d, verbose=TRUE)
```

**Arguments**

- `d`: A `dist` object with the dissimilarity matrix.
- `verbose`: A logical value indicating whether to print progress.

**Details**

Implements the greedy approximation for one-dimensional tree preserving embedding.

**Value**

A matrix with the embedding coordinates.

**References**


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**tpe2d**

*Two-dimensional tree preserving embedding*

**Description**

Finds a two-dimensional tree preserving embedding of a dissimilarity matrix.

**Usage**

```
 tpe2d(d, verbose=TRUE)
```

**Arguments**

- `d`: A `dist` object with the dissimilarity matrix.
- `verbose`: A logical value indicating whether to print progress.
**tpe2d**

**Details**

Implements the greedy approximation for two-dimensional tree preserving embedding.

**Value**

A matrix with the embedding coordinates.

**References**

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