Package 'MCTM'

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Title Markov Chains Transition Matrices

Description Transition matrices (probabilities or counts) estimation for discrete Markov Chains of order n (1 <= n <= 5).

Version 1.0

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LazyData true

NeedsCompilation no

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R topics documented:

`TransMatrix` *Transition Matrix Estimation*

Description

This function allows you to estimate transition matrices (probabilities or counts) for up-to-fifth-order discrete Markov chains. For n-order Markov chains with n greater than 1, you can access the estimated transition matrices through nested lists.

Usage

```
TransMatrix(sequence, order = 1, probs = TRUE)
```

Arguments

sequence	A vector of integers representing the sequence. The sequence must be in the form of 1,2,3,...
order	Integer from 1 to 5. Order of the Markov chain. By default is set to 1.
probs	Logical. If TRUE probability matrices are returned, otherwise count matrices are returned. By default is set to TRUE.

Examples

```
seq <- sample(c(1,2,3,4), size = 1000, replace = TRUE)
TransMatrix(seq, order = 1, probs = TRUE)
TransMatrix(seq, order = 2, probs = FALSE)
mc <- TransMatrix(seq, order = 4, probs = TRUE)
mc[[1]][[2]][[3]] # through nested lists you can access to the estimated transition matrices
```

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