

Package ‘MatSkew’

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Type Package

Title Matrix Skew-T Parameter Estimation

Version 0.1.5

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Description Performs matrix skew-t parameter estimation, Gallagher and McNicholas (2017) <doi:10.1002/sta4.143>.

License GPL (>= 2)

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LazyData true

RoxygenNote 6.1.1

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|-----------|---|
| Fit_Skewt | <i>Matrix Skew t Parameter Estimation</i> |
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Description

Performs parameter estimation for the matrix variate skew-t distribution using an ECM algorithm.

Usage

```
Fit_Skewt(X, Tol = 0.001, max_iter = 1000)
```

Arguments

X A list of matrices of the same size
Tol The tolerance of the ECM algorithm. Defaults to 0.001
max_iter The maximum number of iterations. Defaults to 1000

Value

Returns a list with elements M (the estimate of the location), A (the estimate of the skewness), nu (the estimate of the degrees of freedom), Sigma (the estimate of Sigma), Psi (the estimate of Psi), loglik (a vector of log likelihood values), flag (returns TRUE if a numerical issue occurred, FALSE otherwise).

Examples

```
data(SimX)
Fit_st<-Fit_Skewt(SimX)
```

| | |
|------|-----------------------|
| SimX | <i>Simulated Data</i> |
|------|-----------------------|

Description

This is a simulated dataset with 100 observations from 4 by 3 matrix skew-t distribution.

Usage

```
data(SimX)
```

Format

An object of class `list` of length 100.

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