

# Package ‘mgpd’

February 20, 2015

**Type** Package

**Title** mgpd: Functions for multivariate generalized Pareto distribution (MGPD of Type II)

**Version** 1.99

**Date** 2012-03-15

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**Depends** R (>= 2.10.1), evd, numDeriv, corpcor, fields

**Description** Extends distribution and density functions to parametric multivariate generalized Pareto distributions (MGPD of Type II), and provides fitting functions which calculate maximum likelihood estimates for bivariate and trivariate models. (Help is under progress)

**License** GPL-3

**Repository** CRAN

**Date/Publication** 2012-03-19 17:35:21

**NeedsCompilation** no

## R topics documented:

mgpd-package . . . . .	2
WindData . . . . .	2

<b>Index</b>	<b>4</b>
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mgpd-package	<i>mgpd: Functions for multivariate generalized Pareto distribution (MGPD of Type II)</i>
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### Description

Extends distribution and density functions to parametric multivariate generalized Pareto distributions (MGPD of Type II), and provides fitting functions which calculate maximum likelihood estimates for bivariate and trivariate models.

### Details

Package: mgpd  
 Type: Package  
 Version: 2.0  
 Date: 2012-03-07  
 License: GPL-3

~~ An overview of how to use the package, including the most important ~~ ~~ functions ~~

### Author(s)

Pal Rakonczai Maintainer: Pal Rakonczai <rakonczai.p [at] gmail.com>

### References

Rakonczai and Zempleni (2010)

### Examples

```
x=y=seq(-2,6,0.05)
z1=outer(x,y,pbgpd,model="log")
z2=outer(x,y,pbgpd,model="neglog")
image(z1-z2)
```

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WindData	<i>German Wind Speed Data</i>
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### Description

Daily maxima of wind speed in m/sec at 5 locations of Northern-Germany.

### Usage

```
data(WindData)
```

**Format**

A data frame with 17926 observations on the following 6 variables.

date date of observations

Hamburg a numeric vector of wind speed (m/s)

Hanover a numeric vector of wind speed (m/s)

Bremerhaven a numeric vector of wind speed (m/s)

Fehmarn a numeric vector of wind speed (m/s)

Schleswig a numeric vector of wind speed (m/s)

**Examples**

```
data(WindData)
```

```
str(WindData)
```

# Index

\*Topic **datasets**

WindData, [2](#)

\*Topic **dbgpd, dtgpd**

mgpd-package, [2](#)

mgpd (mgpd-package), [2](#)

mgpd-package, [2](#)

WindData, [2](#)