Package ‘WaveletGARCH’

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Type Package
Title Fit the Wavelet-GARCH Model to Volatile Time Series Data
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R topics documented:

autoarima-class ................................................................. 1
WaveletGARCHFit ............................................................... 2
WaveletGARCHFore ............................................................ 3

Index 5

autoarima-class class:autoarima-result-class

Description

class to store results of auto.arima
Examples

```r
showClass("autoarima")
```

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**WaveletGARCHFit**  
Fitting of Wavelet-GARCH model

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**Description**

Fitting of Wavelet-GARCH model based on ARCH LM test.

**Usage**

```r
WaveletGARCHFit(series, filtern, level)
## S3 method for class 'WaveletGARCHFit'
print(x, ...)
```

**Arguments**

- `series`: univariate time series
- `filtern`: The name of wavelet filter
- `level`: The level of wavelet decomposition
- `x`: An object of WaveletGARCHFit
- `...`: Additional arguments if any

**Value**

- `fittedobject`: The fitted value of the series by Wavelet-GARCH model

**References**


Examples

data(mtcars)
ab <- mtcars$qsec

objfit <- WaveletGARCHFit(ab,"d4",4)

WaveletGARCHFore Forecasting by Wavelet-GARCH model

Description

Forecasting of Wavelet-GARCH model based on ARCH LM test.

Usage

WaveletGARCHFore(series, filtern, level, nofore)

## S3 method for class 'WaveletGARCHFore'
print(x, ...)

Arguments

series univariate time series
filtern The name of wavelet filter
level The level of wavelet decomposition
nofore The lead period of forecast
x An object of WaveletGARCHFore
... Additional arguments if any

Value

forecastobject The forecasted values of the series by Wavelet-GARCH model

References

Univ. Press, U.K.

Paul R. K., Prajneshu and Ghosh H. 2013. Wavelet Frequency Domain Approach for Modelling
and Forecasting of Indian Monsoon Rainfall Time-Series Data. Journal of the Indian society of
agricultural statistics, 67, 319 to 327.

Journal of Water and Climate Change, 7, 365 to 378.

Paul, R. K. 2015. ARIMAX-GARCH-WAVELET Model for forecasting volatile data. Model As-
sisted Statistics and Application, 10, 243 to252.
Examples

\begin{verbatim}
data(mtcars)
ab<-mtcars$qsec

objfore<-WaveletGARCHFore(ab,"d4",4,10)
\end{verbatim}
Index

autoarima-class, 1

print.WaveletGARCHFit
  (WaveletGARCHFit), 2
print.WaveletGARCHFore
  (WaveletGARCHFore), 3

WaveletGARCHFit, 2
WaveletGARCHFore, 3