R Package stsm

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January 2015

Abstract

This is a minimal introduction to package stsm. Further information is available in the references given below.

1 Introduction

The example below fits the basic structural time series model to the airlines passengers data.

```
> library("stsm")
> m <- stsm.model(model = "BSM", y = log(AirPassengers), transPars = "StructTS")
> res <- maxlik.td.optim(m = m, KF.args = list(P0cov = TRUE), method = "L-BFGS-B")
> round(get.pars(res$model) * 10000, 3)

  var1   var2   var3   var4
 0.000  7.719  0.000 13.969
```

Details about the methodology and algorithms implemented in the package are given in this document.

As a preliminary introduction and discussion see these posts: optimization algorithms to fit a structural time seriesmodel and variations on a maximum likelihood procedure.