

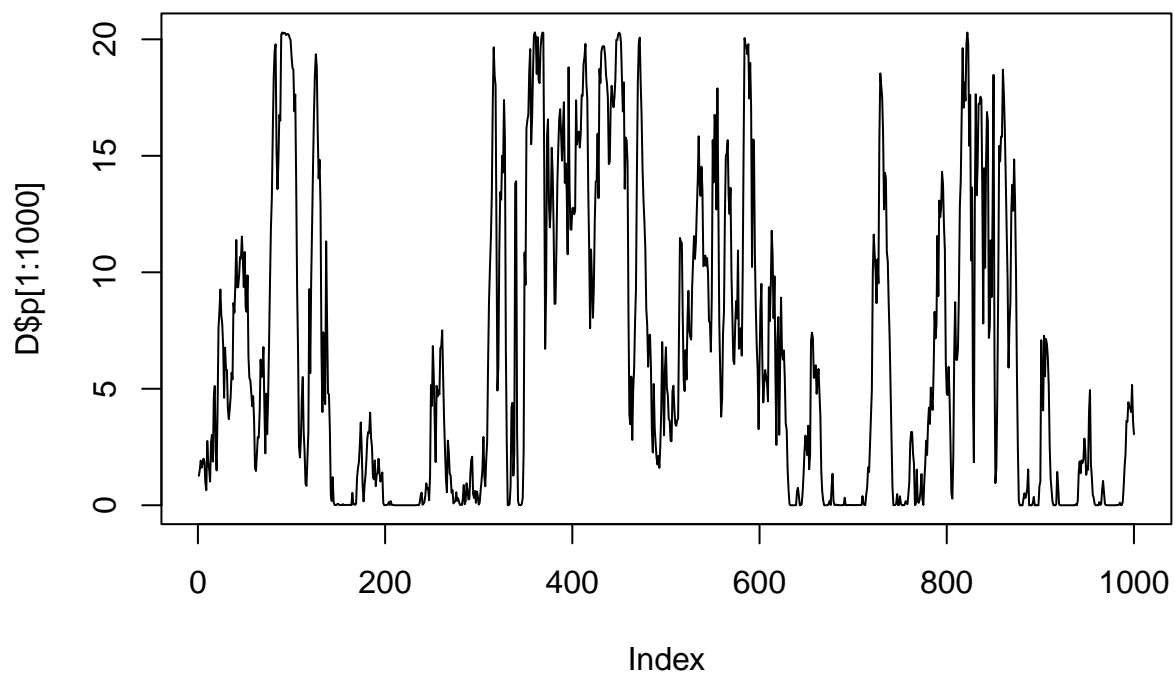
4th Assignment: Title

David Ribberholt Ipsen (s164522), Kasper (s....), Michelle ... (s....)

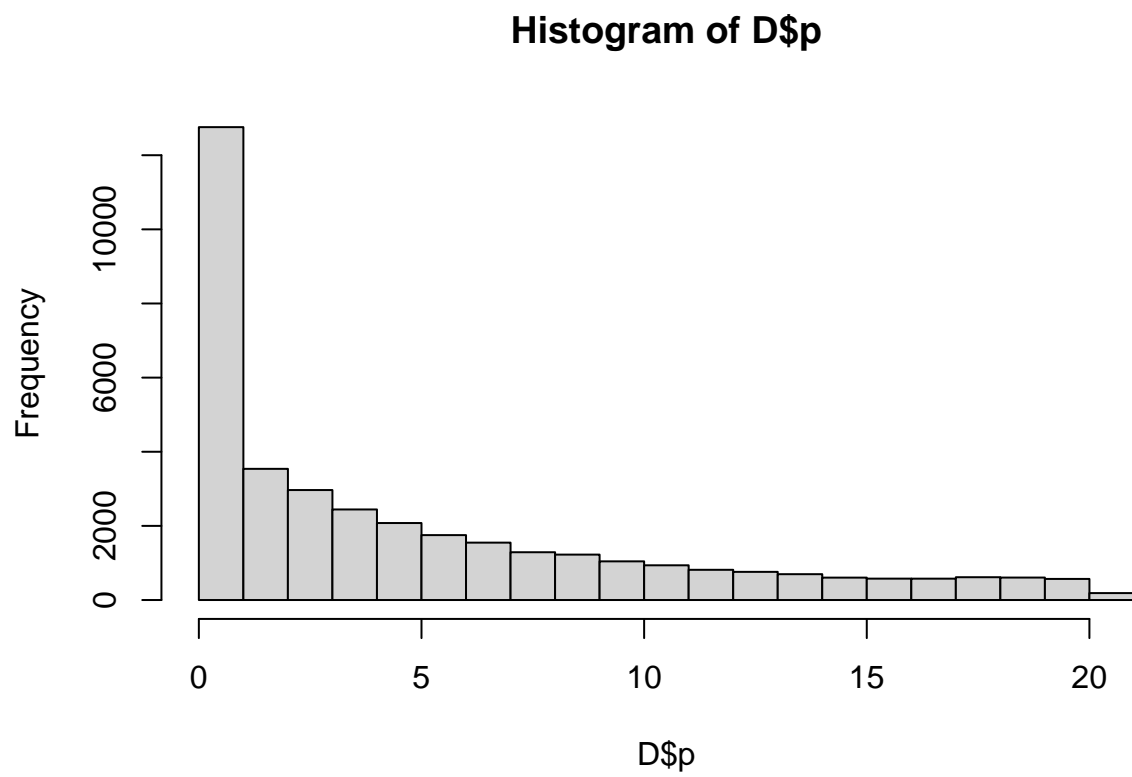
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Contents

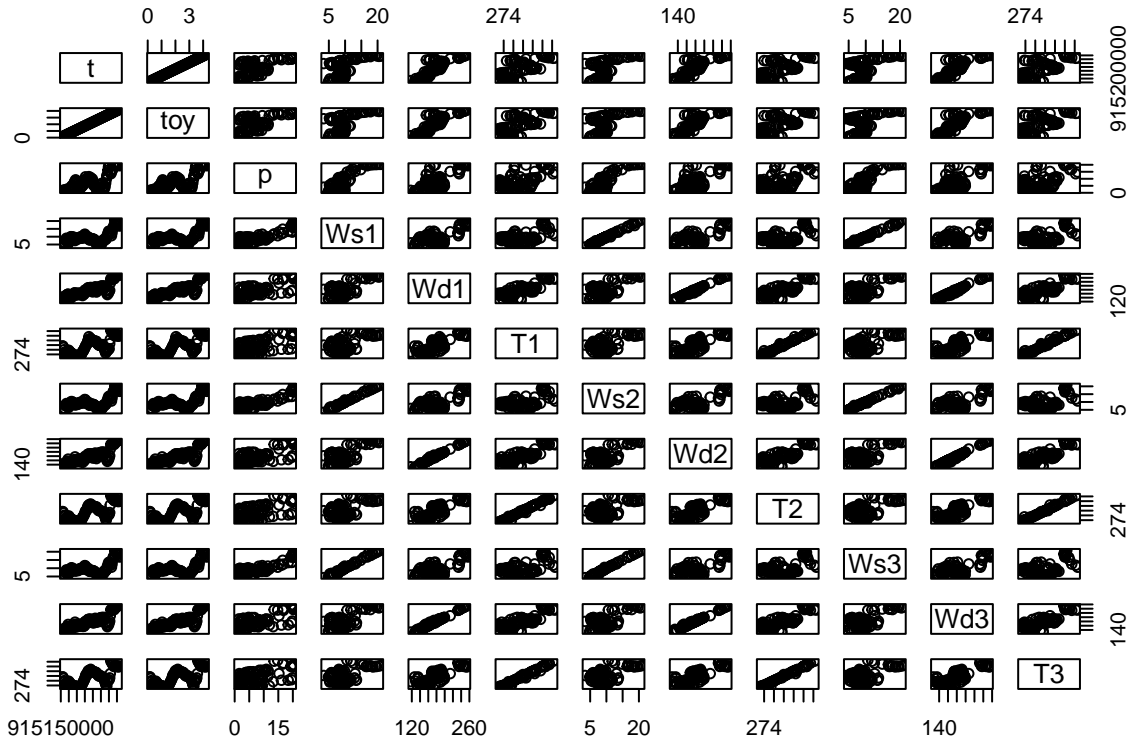
```
if (Sys.info()[7] == "davidipsen"){  
  setwd("~/Documents/DTU/3. Semester (MSc)/Advanced Time Series/Assignments/4-Assignment")  
} else if (Sys.info()[7] == "Hvad end Kaspers PC hedder-sikkert noget UNIX-hejs ^_^"){  
}  
  
D <- read.table("comp_ex_4_scripts_2011/data/cex4WindDataInterpolated.csv", sep="," ,  
               header=TRUE, stringsAsFactors=FALSE)  
D$t <- as.POSIXct(D$t, tz="UTC")  
  
# Descriptive statistics  
plot(D$p[1:1000], type='l')
```



```
hist(D$p)
```



```
plot(D[1:100,]) # Plot subset of from all variables
```



```
# Mean Model
# AR(1)
# AR(1)X (Linear regression)

# Thoughts: Wind has a logistic effect for the power: ... + logit(wind)
```

BENCHMARKS

Continous-Discrete State Space Model (with adaptivity) Thoughts

1. + ... $rX(1-X/CAP) \mid W = \text{wind}, X = \text{True wind power}$
2. $r = f()$

MARKOV-SWITCHING

DESCRETIZING (EULER-MARYAMA)