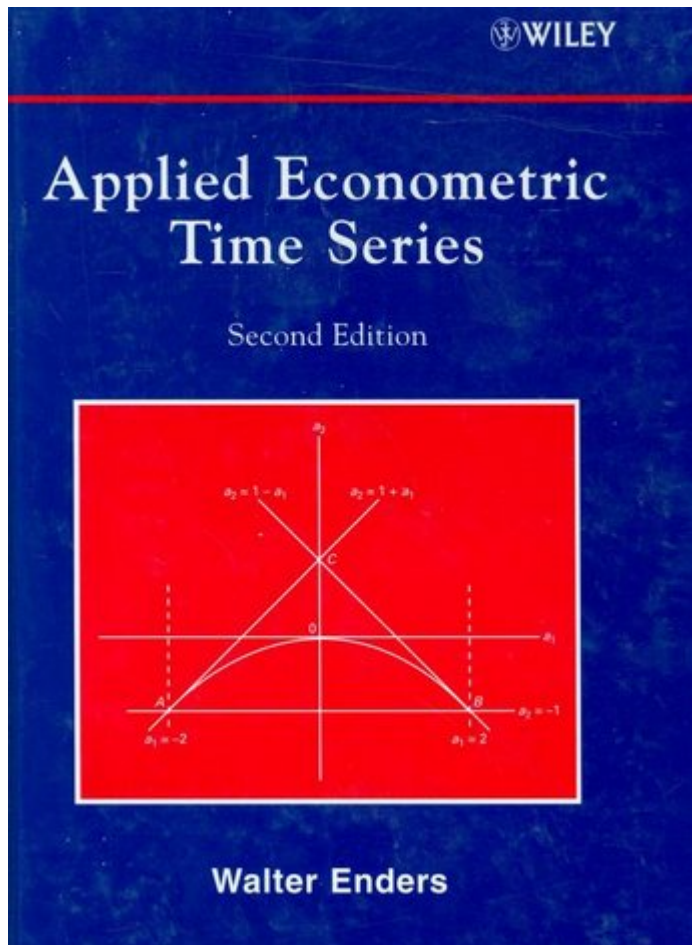


## Stacionarita AR(2) procesu



Čo je na obálke knihy Applied Econometric Time Series (<http://www.amazon.com/Applied-Econometric-Time-Series-Edition/dp/0471230650>)?

```
n=2000
set.seed(123)
alpha1 <- runif(n, min = -2.5, max = 2.5)
alpha2 <- runif(n, min = -2.5, max = 2.5)
```

```
stationary <- rep(NA, n)
df <- data.frame(alpha1, alpha2, stationary)
```

```
head(df)
```

```
##      alpha1      alpha2 stationary
## 1 -1.0621124 -1.70163010         NA
## 2  1.4415257 -1.77742074         NA
## 3 -0.4551154 -1.75409804         NA
```

```
## 4  1.9150870  0.07217130      NA
## 5  2.2023364 -0.03586347      NA
## 6 -2.2722175  0.58171384      NA

library(fArma) # kvoli funkcii armaRoots
for (i in 1:n) {
  # doplnte cyklus - TRUE, FALSE podľa toho, ci je proces stacionarny
  df$stationary[i] <-
}

# co chceme dostat:

head(df)

##      alpha1      alpha2 stationary
## 1 -1.0621124 -1.70163010      FALSE
## 2  1.4415257 -1.77742074      FALSE
## 3 -0.4551154 -1.75409804      FALSE
## 4  1.9150870  0.07217130      FALSE
## 5  2.2023364 -0.03586347      FALSE
## 6 -2.2722175  0.58171384      FALSE

library(ggplot2) # pekne grafy
qplot(alpha1, alpha2, colour=stationary, data=df)
```

