Simulation Example

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Versión 30 septiembre, 2022

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```
beta0 <- -0.6; beta1 <- 1.7; beta2 <- -2.2; beta3 <- 1.3; r1 <- 2; r3 <- 3
Y <- beta0 + beta1*lag(X1,-r1) + beta2*X2 + beta3*lag(X3,-r3) + residuals
xregs <- cbind(X1, X2, X3, X4, X5, X6)
ajuste <- drm.select(Y, xregs, ic='aicc', st_method='adf.test', show_info=F)
```

```
print(ajuste$history, row.names=F)
```

```
 var lag                ic
  X2   0 -1156.68486061937
  X1  -2 -2171.66958134745
  X3  -3 -3108.15443209894
```

```
print(ajuste, row.names=F)
```

```
Series: serie
Regression with ARIMA(0,0,4) errors

Coefficients:
         ma1     ma2  ma3     ma4  intercept       X2      X1      X3
      0.2498  0.3360    0  0.1589    -0.5947  -2.1868  1.6949  1.3083
s.e.  0.0304  0.0302    0  0.0300     0.0033   0.0105  0.0089  0.0320

sigma^2 = 0.002377:  log likelihood = 1562.15
AIC=-3108.3   AICc=-3108.15   BIC=-3069.26
```

```
preds <- forecast_model(Y, xregs, ajuste, h=10,
                        mode='bootstrap', levels=c(50, 75, 90))
```