```
sunspots <- itsmr::Sunspots
armaests <- yw(sunspots, p=2)
armaests$phi; armaests$sigma2
```

```
## [1]  1.3175005 -0.6341215
```
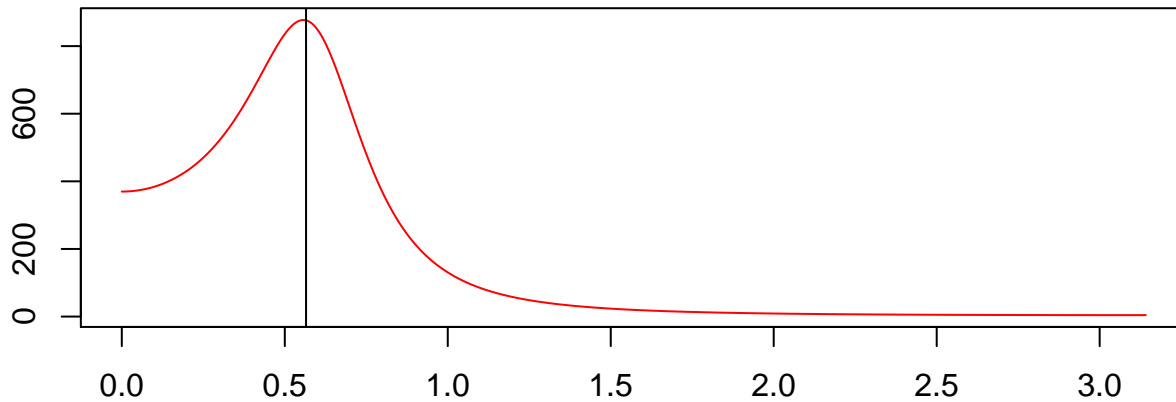
```
## [1] 232.895
```

```
#periodogram of fitted model. Maximum is at frequency 52pi/289
plots(armaests) + abline(v=2*pi*26/289)
```

Model Spectrum


```
## integer(0)
```

```
period <- 2*pi/(52*pi/289);       period
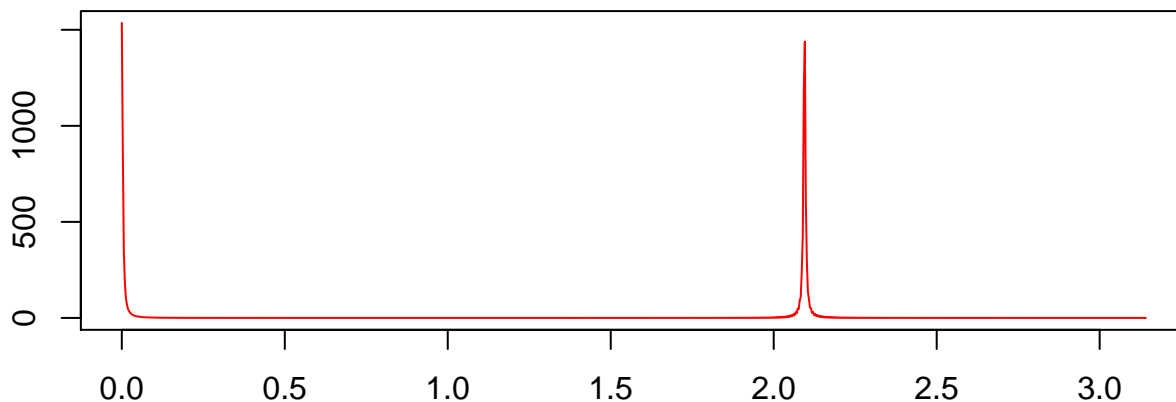```

```
## [1] 11.11538
```

4.8)
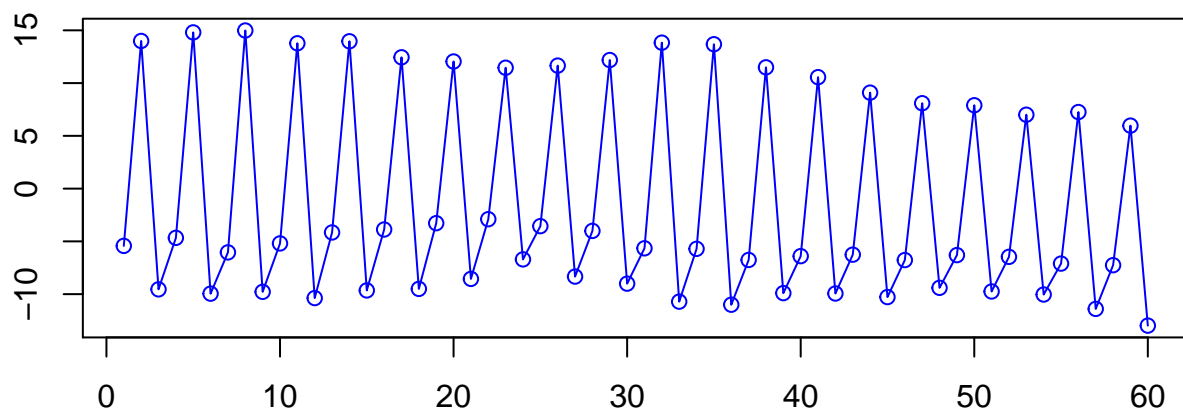
```
#specify model and plot the periodogram
arspec <- specify(ar=c(0,0,.99), sigma2=1);       plots(arspec)
```

Model Spectrum

```
#c
simars <- sim(arspec, n= 60);        plotc(simars)
```



```
#e
plotc(smooth.ma(simars, q=1))
```