

EDA

Annie Cohen and Lian Morales

4/19/2021

```
# pulling the data from the Los Angeles County GitHub
casedata <- read.csv(text = getURL("https://raw.githubusercontent.com/datadesk/california-coronavirus-d
  filter(county == "Los Angeles") %>%
  mutate(date = date(date), month = month(date)) %>%
  map_df(rev) %>%
  filter(!is.na(new_confirmed_cases) & between(date, date("2020-04-01"),date("2021-03-31"))))

# creating the time series
case.ts <- ts(casedata$new_confirmed_cases, start = 1, frequency = 1)

# averaging dec 25th and 26th
case.ts[269] <- 14711
case.ts[270] <- 14712

## april 1 - sep 30
case.ts.1 <- ts(case.ts[1:183], start = 1, frequency = 1)

# april 1 - jul 14
case.ts.1.1 <- ts(case.ts[1:105], start = 1, frequency = 1)
# jul 15 - sep 30
case.ts.1.2 <- ts(case.ts[106:183], start = 1, frequency = 1)

## oct 1 - mar 31
case.ts.2 <- ts(case.ts[184:365], start = 1, frequency = 1)

# oct 1 - dec 20
case.ts.2.1 <- ts(case.ts[184:264], start = 1, frequency = 1)
# dec 21 - mar 31
case.ts.2.2 <- ts(case.ts[265:365], start = 1, frequency = 1)

## april 1 - july 14
bxcx.1.1 <- BoxCox.ar(case.ts.1.1)

## Warning in arima0(x, order = c(i, 0L, 0L), include.mean = demean): possible
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```
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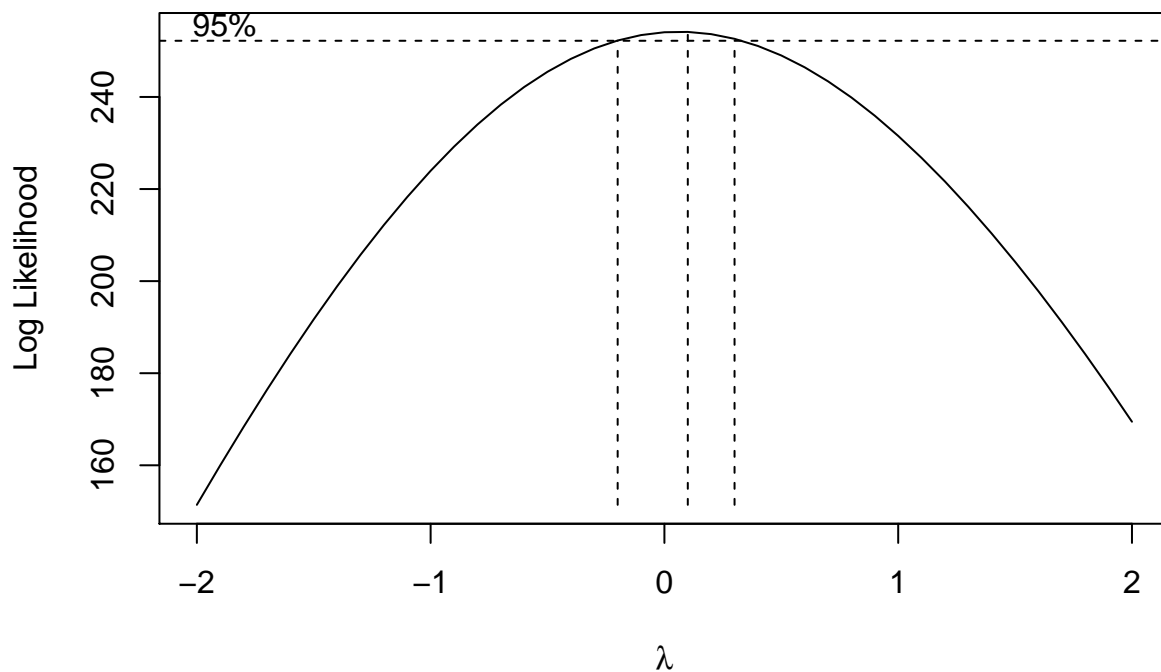
## Warning in arima0(x, order = c(i, 0L, 0L), include.mean = demean): possible
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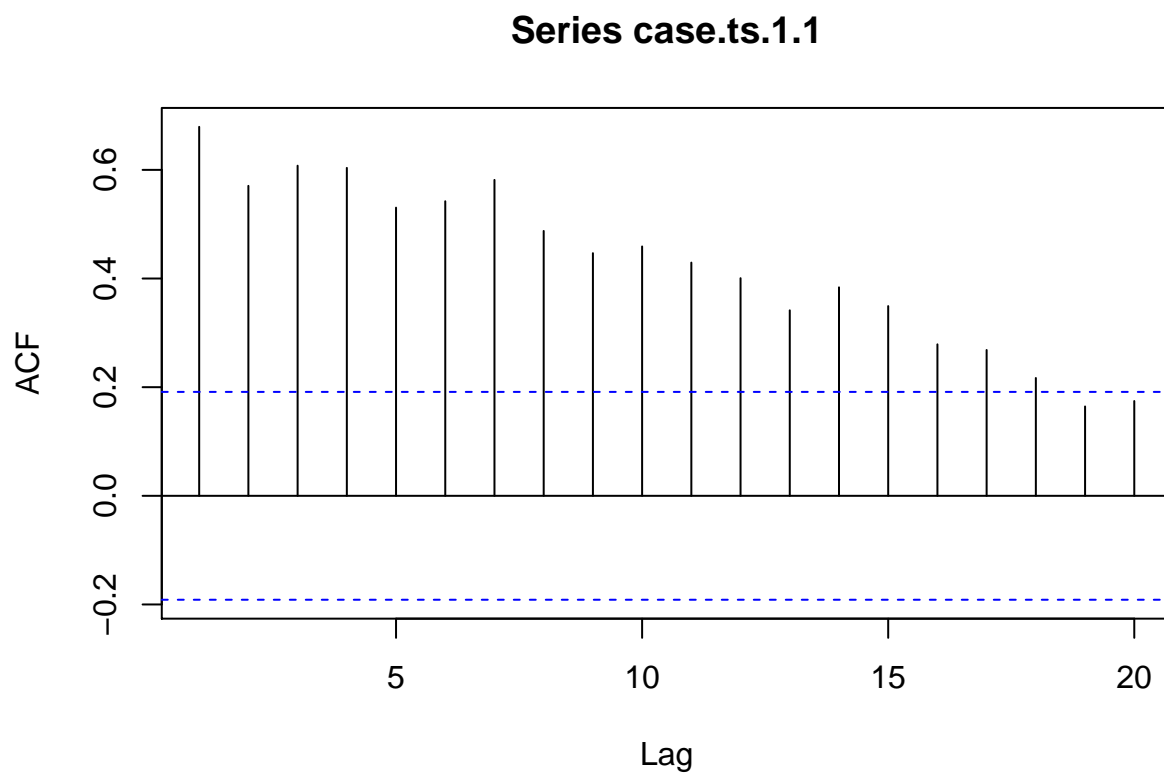
```
bxcx.1.1$mle
```

```
## [1] 0.1
```

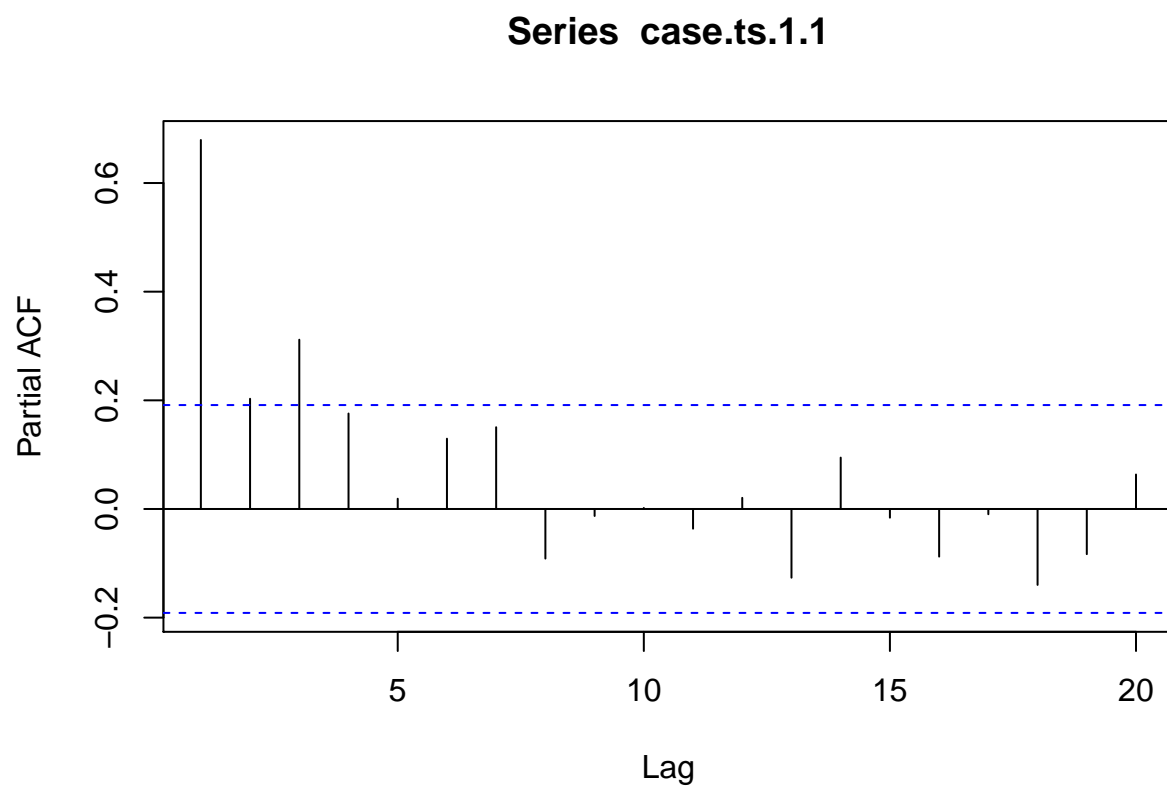
```
bxcx.1.1$ci
```

```
## [1] -0.2 0.3
```

```
acf(case.ts.1.1)
```



```
pacf(case.ts.1.1)
```



```
## july 15 - september 30
```

```
bxcx.1.2 <- BoxCox.ar(case.ts.1.2)
```

```
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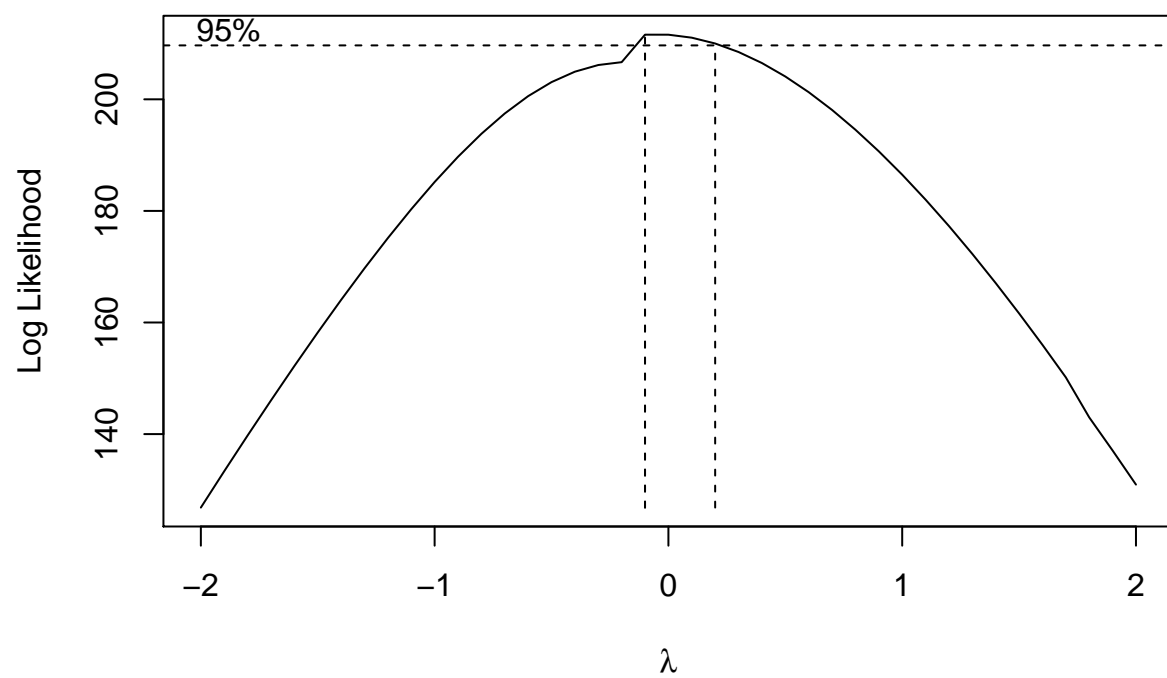
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```
bxcx.1.2$mle
```

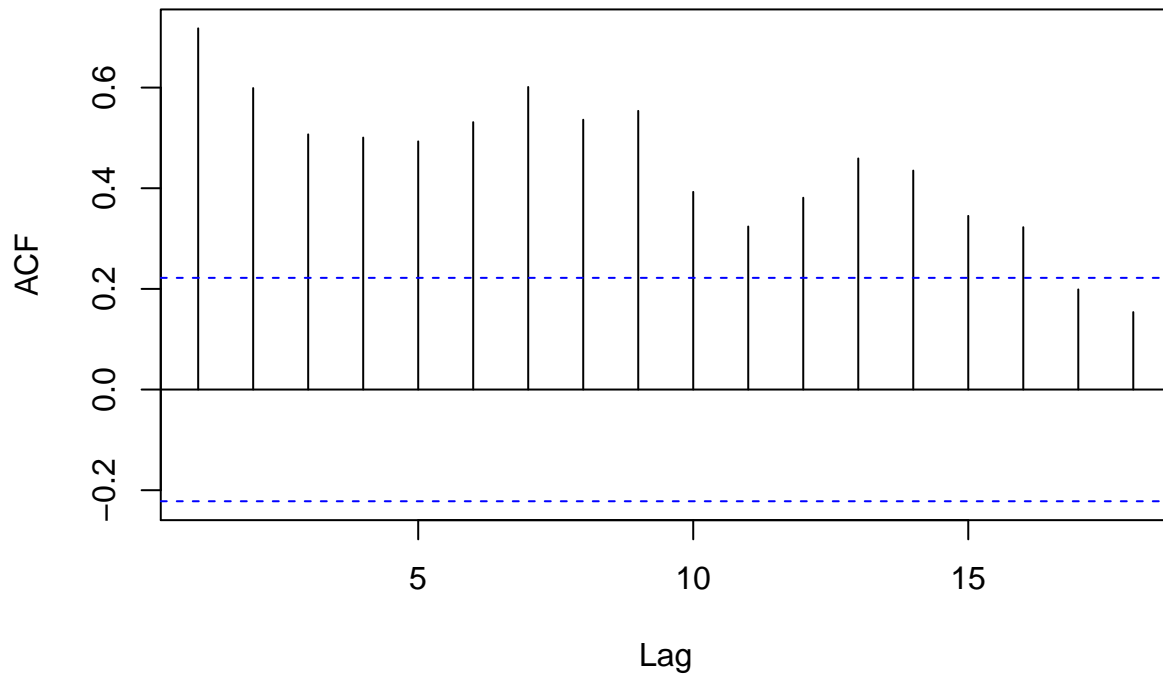
```
## [1] -0.1
```

```
bxcx.1.2$ci
```

```
## [1] -0.1 0.2
```

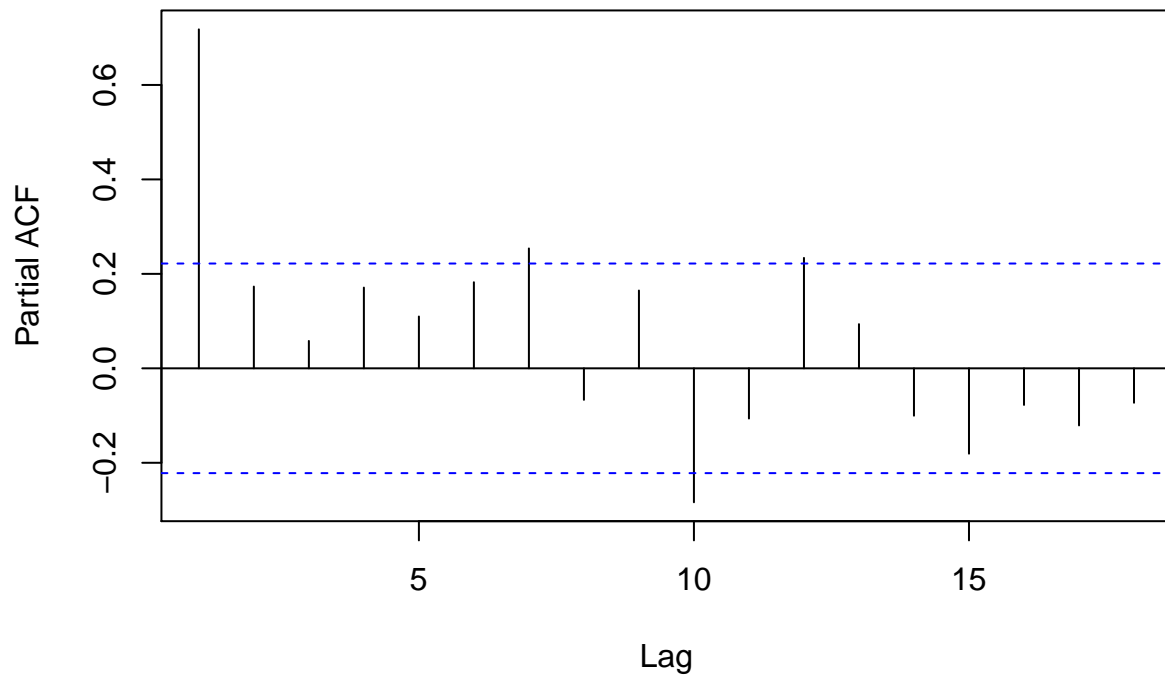
```
acf(case.ts.1.2)
```


Series case.ts.1.2



```
pacf(case.ts.1.2)
```

Series case.ts.1.2



```
## october 1 - december 20
```

```
bxcx.2.1 <- BoxCox.ar(case.ts.2.1)
```

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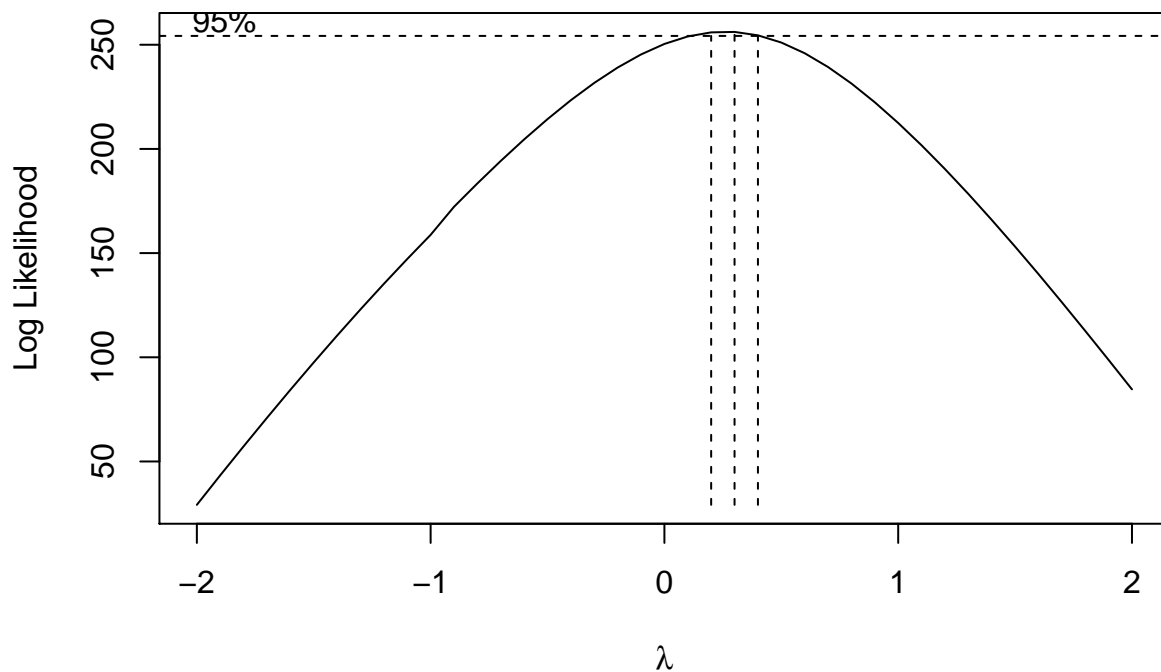
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```
bxcx.2.1$mle
```

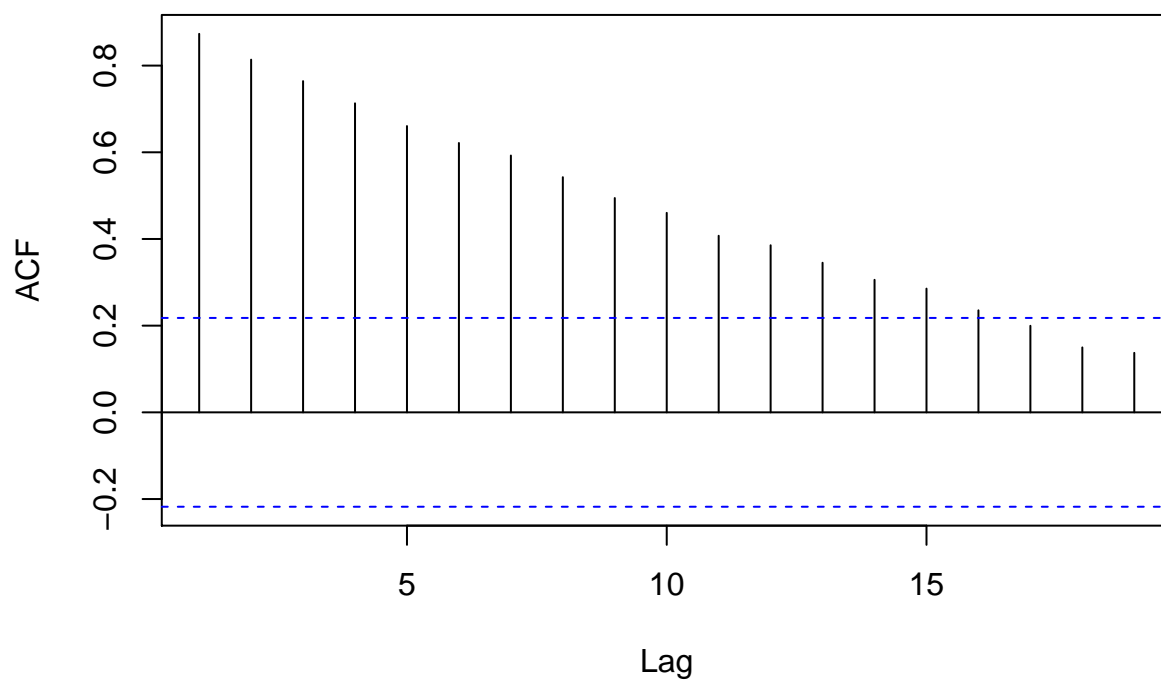
```
## [1] 0.3
```

```
bxcx.2.1$ci
```

```
## [1] 0.2 0.4
```

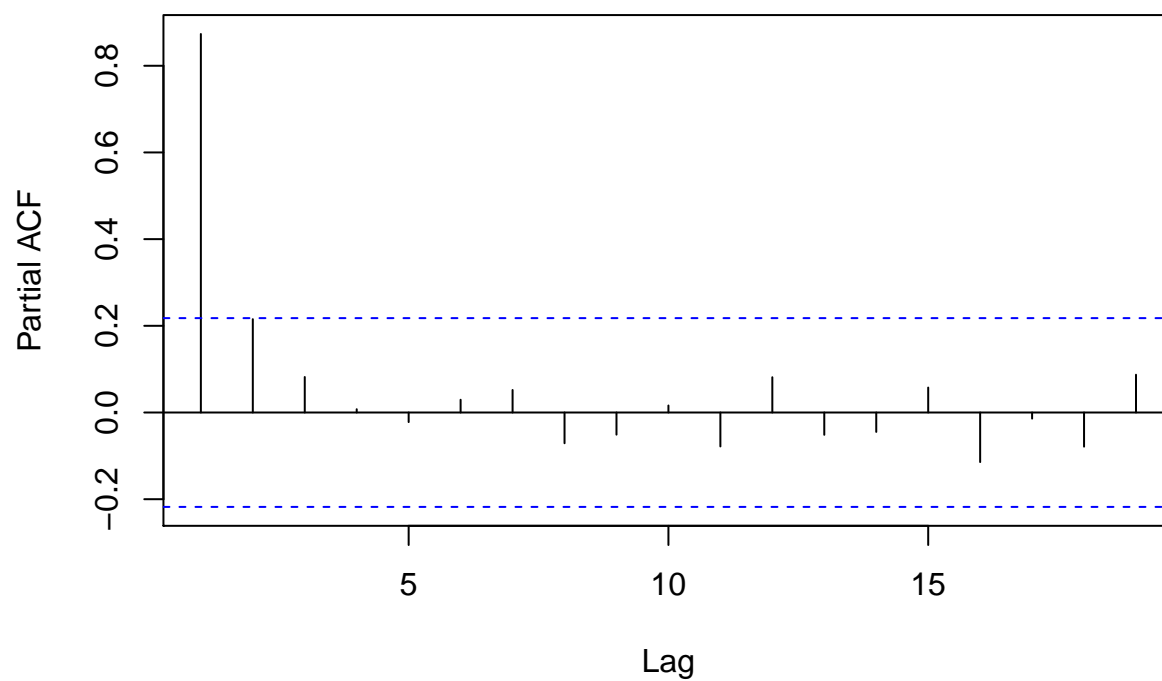
```
acf(case.ts.2.1)
```

Series case.ts.2.1



```
pacf(case.ts.2.1)
```

Series case.ts.2.1



```
## december 21 - march 31
```

```
bxcx.2.2 <- BoxCox.ar(case.ts.2.2)
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```

[illegible]


```
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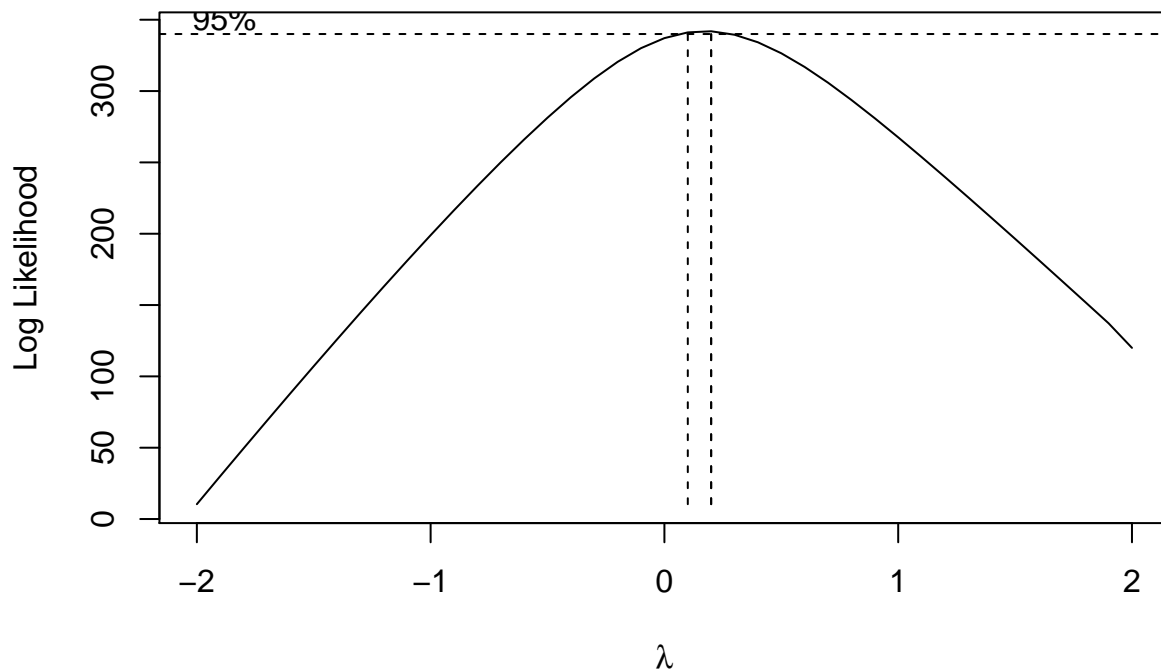
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```
bxcx.2.2$mle
```

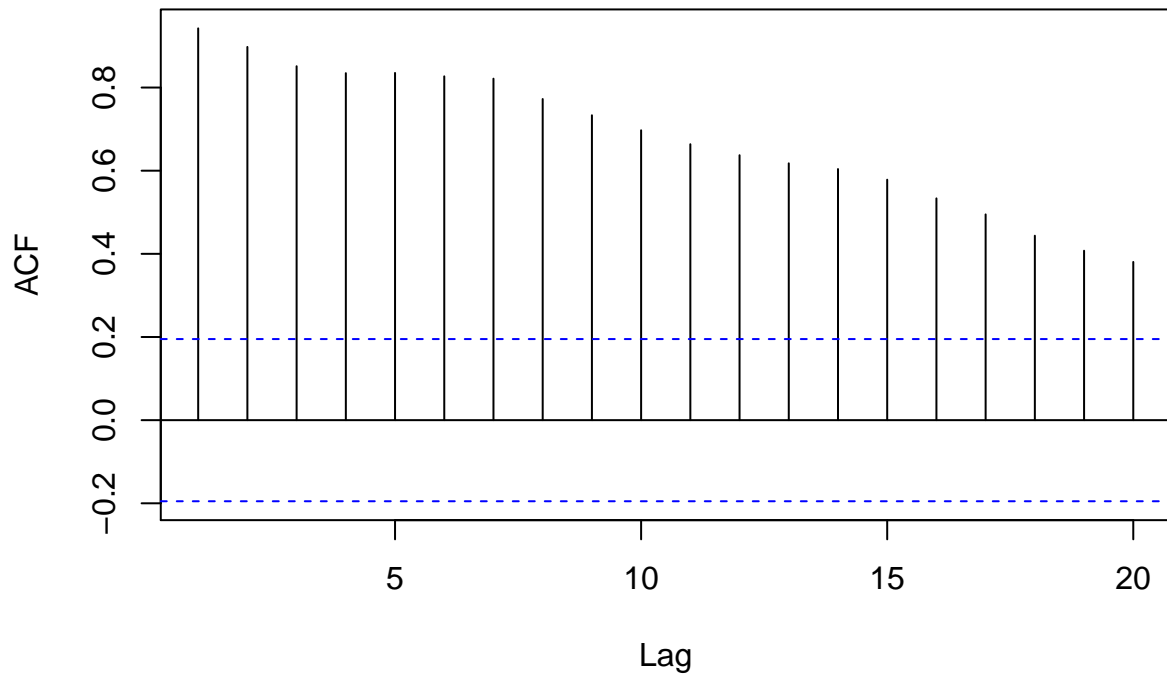
```
## [1] 0.2
```

```
bxcx.2.2$ci
```

```
## [1] 0.1 0.2
```

```
acf(case.ts.2.2)
```

Series case.ts.2.2



```
pacf(case.ts.2.2)
```

Series case.ts.2.2

