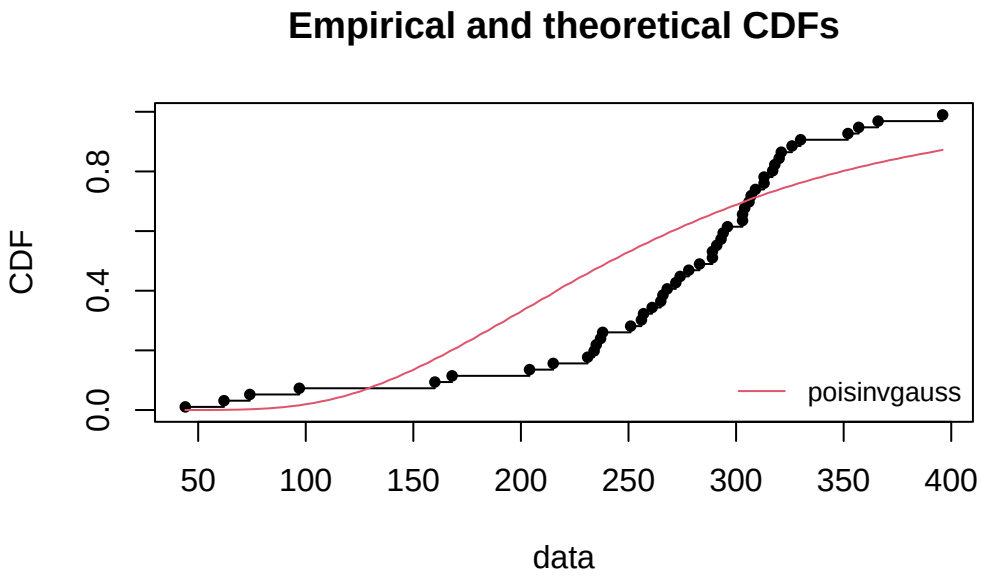
Bitácora 4

Parte de planificación

Variciones en el ajuste de la frecuencia

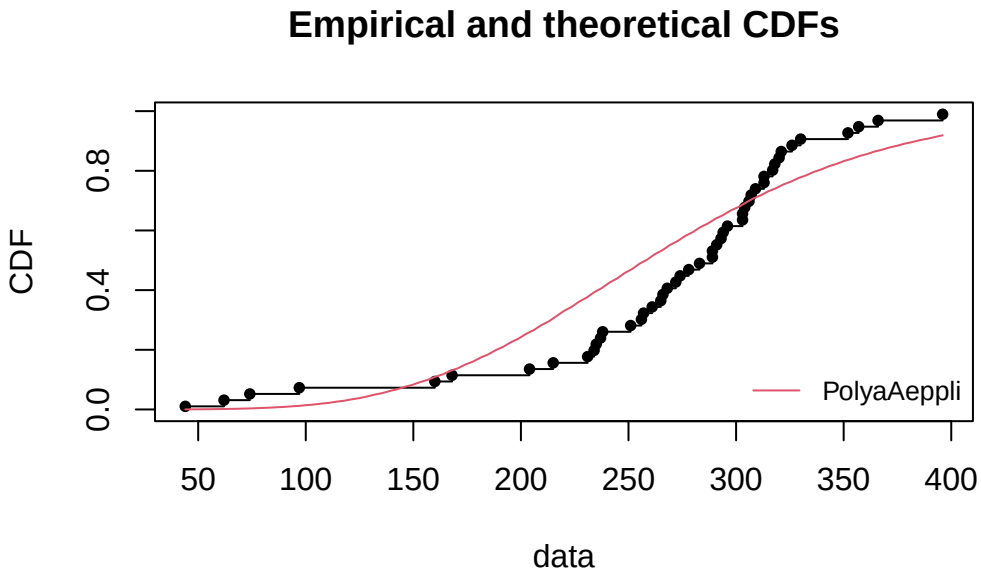
```
Warning in checkparamlist(arg_startfix$start.arg, arg_startfix$fix.arg, :
Some parameter names have no starting/fixed value but have a default value:
dispersion.
```



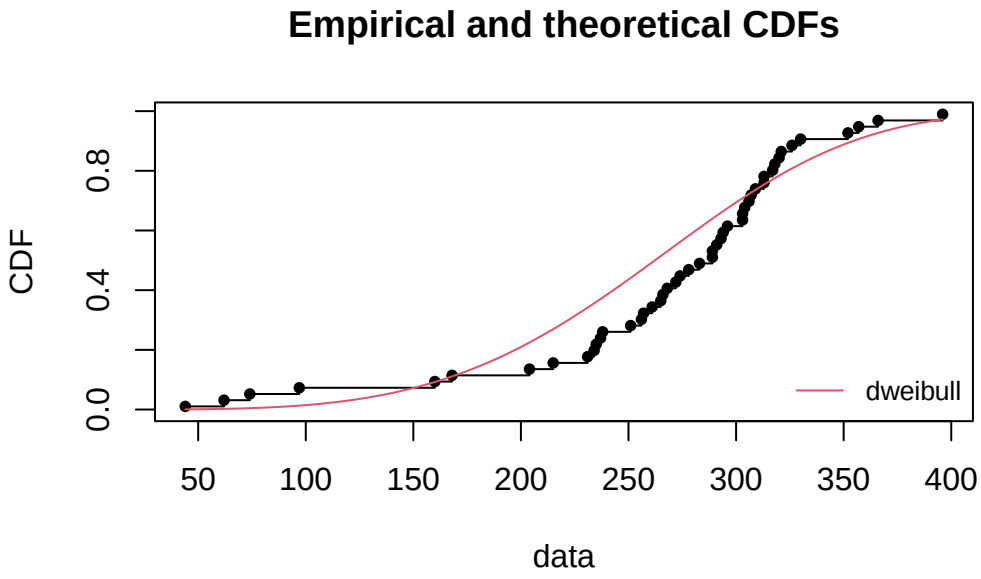

```
Warning: package 'polyaAeppli' was built under R version 4.1.3
```

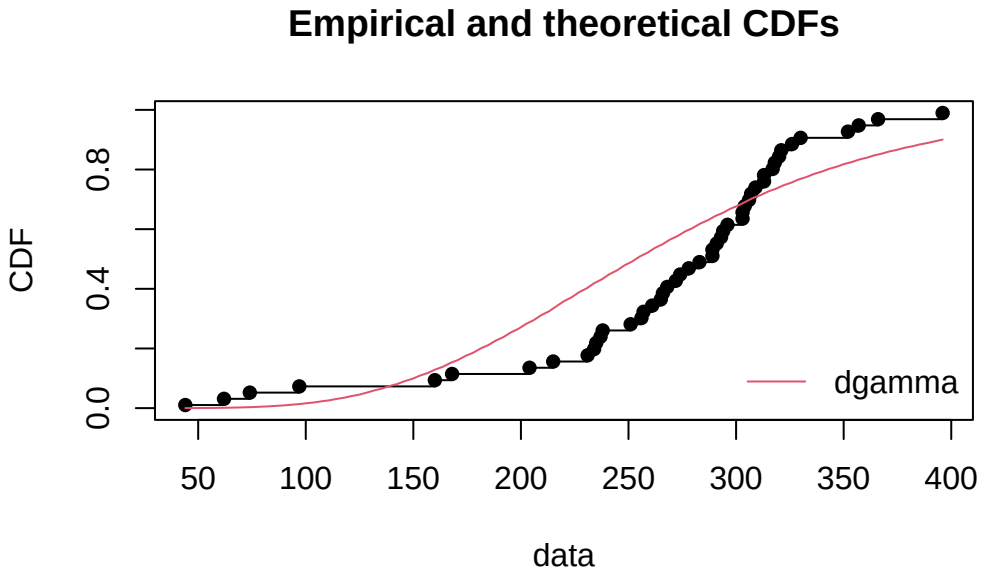
```
Warning in fitdist(data = datos_agregados$N, distr = "PolyaAeppli", method =
"mle", : The dPolyaAeppli function should return a vector of with NaN values
when input has inconsistent values and not raise an error
```

```
Warning in fitdist(data = datos_agregados$N, distr = "PolyaAeppli", method =
"mle", : The pPolyaAeppli function should return a vector of with NaN values
when input has inconsistent values and not raise an error
```



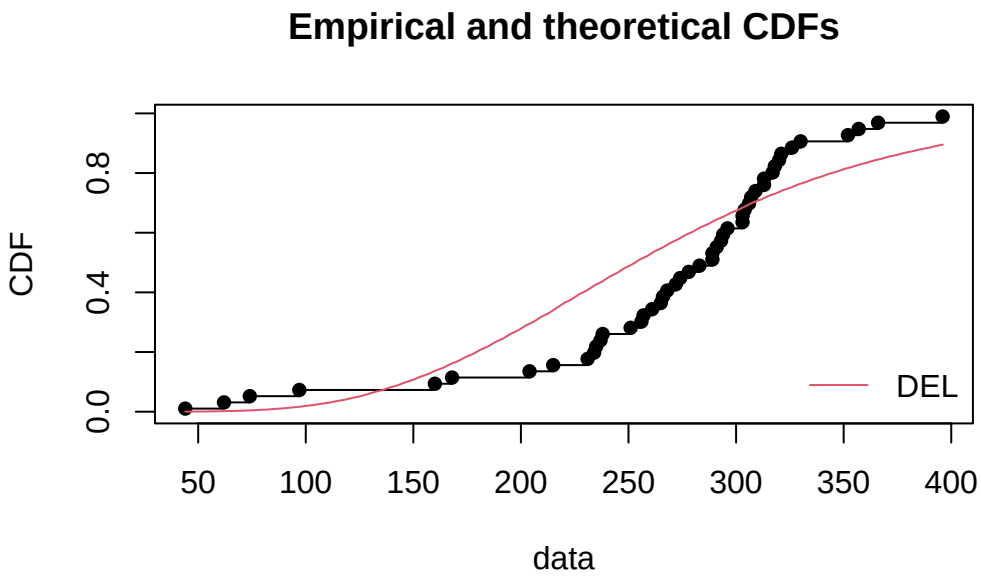

```
Warning: package 'extraDistr' was built under R version 4.1.3


Attaching package: 'extraDistr'

The following objects are masked from 'package:evd':

    dfrechet, dgev, dgpd, dgumbel, pfrechet, pgev, pgpd, pgumbel,
    qfrechet, qgev, qgpd, qgumbel, rfrechet, rgev, rgpd, rgumbel

The following object is masked from 'package:gamlss':

    pcat

The following objects are masked from 'package:actuar':

    dgumbel, dinvgamma, dpareto, pgumbel, pinvgamma, ppareto, qgumbel,
    qinvgamma, qpareto, rgumbel, rinvgamma, rpareto
```






```
Warning in fitdist(data = datos_agregados$N, distr = "DEL", method = "mle", :
The dDEL function should return a zero-length vector when input has length zero
and not raise an error
```

```
Warning in fitdist(data = datos_agregados$N, distr = "DEL", method = "mle", :
The pDEL function should return a zero-length vector when input has length zero
and not raise an error
```



Ajuste del máximo

```
datos_maximo <- datos %>%
  filter(disposition == "Settle" | disposition== "Approve in Full")

datos_maximo <- datos_maximo %>%
  group_by("ano" = year(date_received),"mes" = month(date_received) ) %>%
  summarise(max = max(close_amount))
```

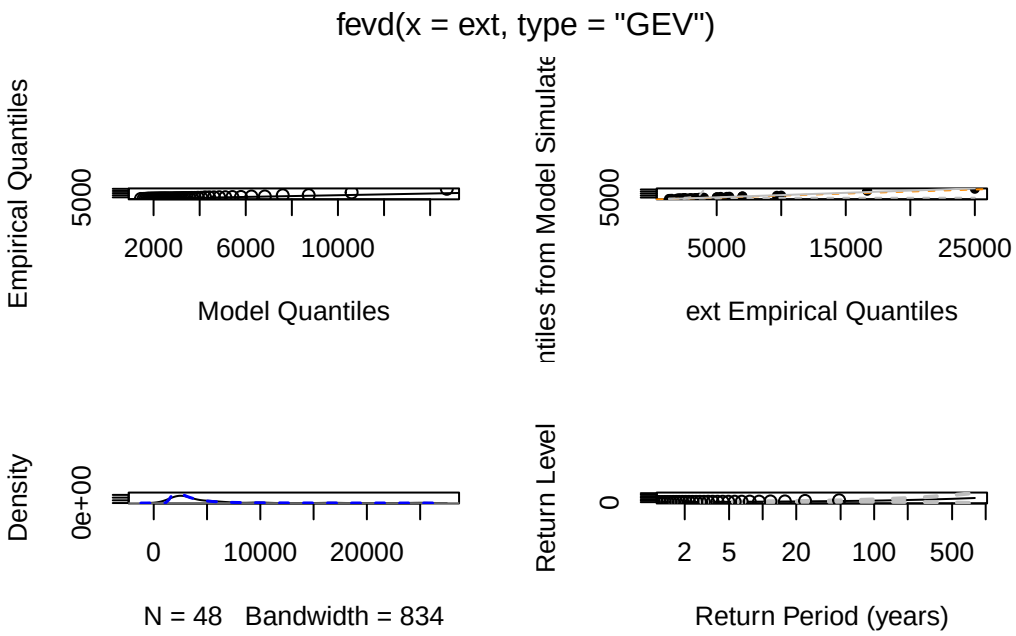
```
`summarise()` has grouped output by 'ano'. You can override using the `.groups`
argument.
```

```
ext <- datos_maximo$max
```

```r
GEV <- fevd(ext, type='GEV')
GEV_summary <- summary(GEV)
```

```
fevd(x = ext, type = "GEV")

[1] "Estimation Method used: MLE"


 Negative Log-Likelihood Value:  427.3326


 Estimated parameters:
   location       scale       shape
2528.952031 1079.551369    0.478419

 Standard Error Estimates:
   location       scale       shape
176.1513727 158.6756456   0.1245162

 Estimated parameter covariance matrix.
             location        scale       shape
location 31029.306095 19819.609406 -5.46642262
scale    19819.609406 25177.960514  3.40612916
shape       -5.466423     3.406129  0.01550429

 AIC = 860.6651

 BIC = 866.2787
```

```r
plot(GEV)
```

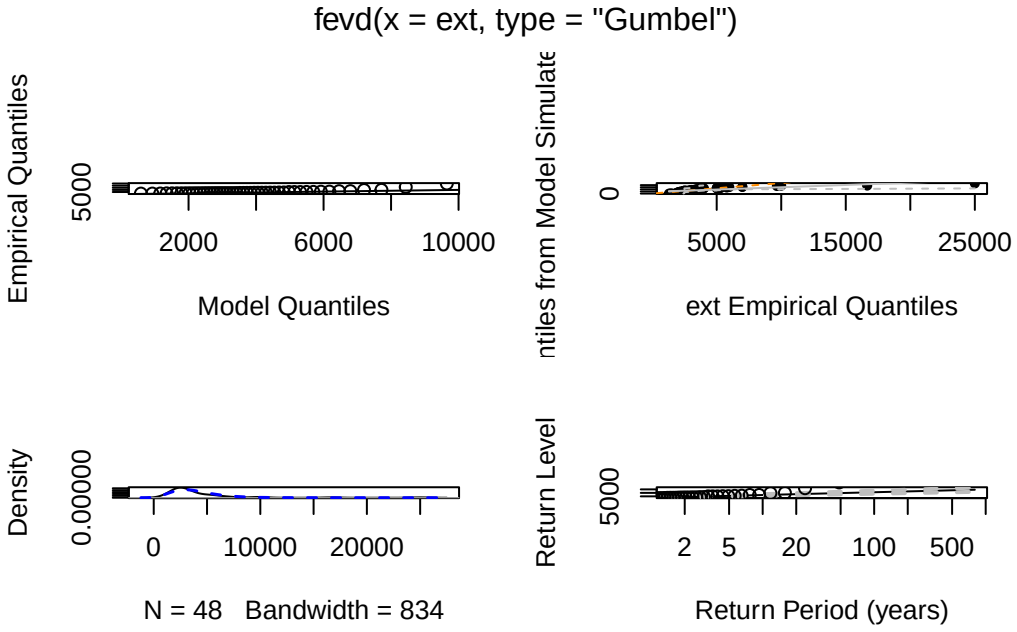



```
Gumbel <- fevd(ext, type='Gumbel')
Gumbel_summary <- summary(Gumbel)
```

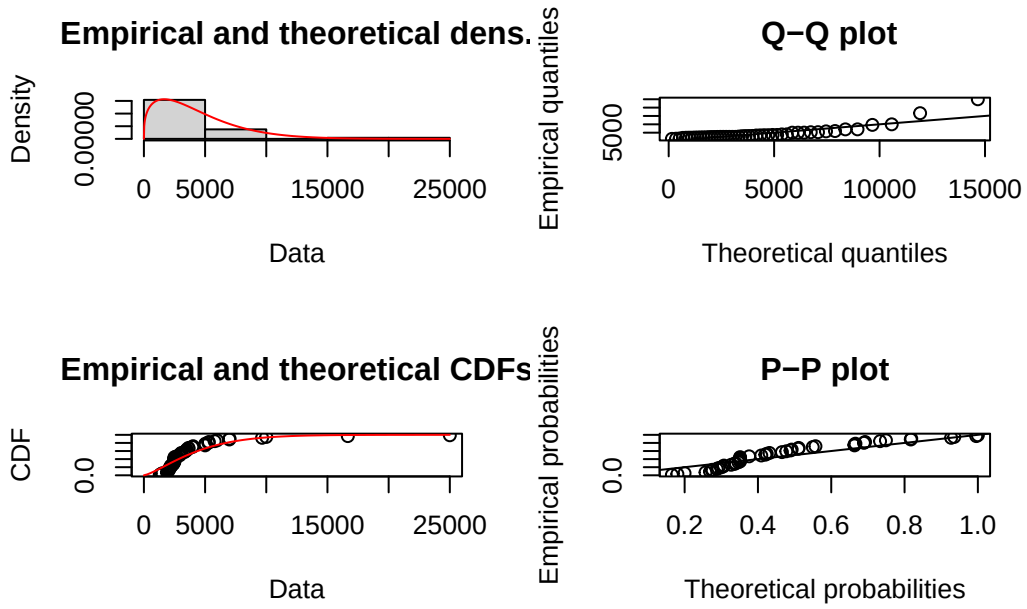
```
fevd(x = ext, type = "Gumbel")

[1] "Estimation Method used: MLE"


 Negative Log-Likelihood Value:  441.9884


 Estimated parameters:
location    scale
2938.414 1729.727

 Standard Error Estimates:
location    scale
256.3933 217.8347

 Estimated parameter covariance matrix.
         location    scale
```

```
location 65737.53 12532.92
scale    12532.92 47451.95

 AIC = 887.9769

 BIC = 891.7193
```

```
plot(Gumbel)
```




```
Weibull <- fitdist(ext, distr = 'weibull')
plot(Weibull)
```



AIC

```
GEV_summary$AIC
```

```
[1] 860.6651
```

```
Gumbel_summary$AIC
```

```
[1] 887.9769
```

```
Weibull$aic
```

```
[1] 894.4492
```

BIC

```
GEV_summary$BIC
```

```
[1] 866.2787
```

```
Gumbel_summary$BIC
```

```
[1] 891.7193
```

```
Weibull$bic
```

```
[1] 898.1916
```