# YbSr



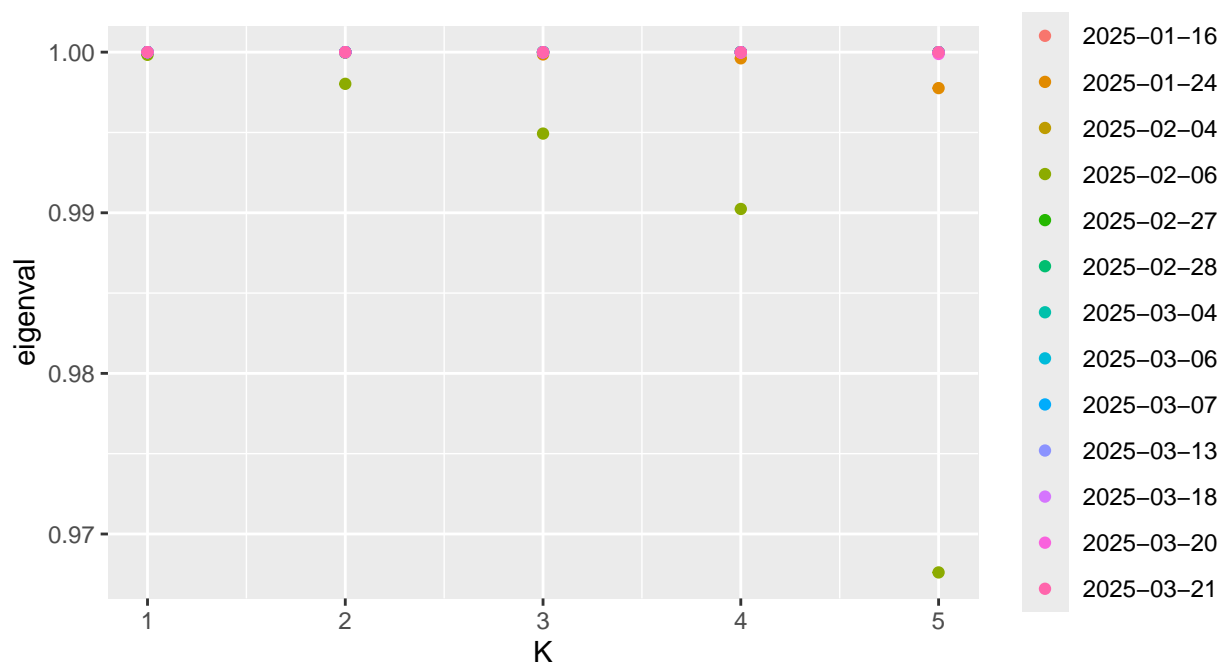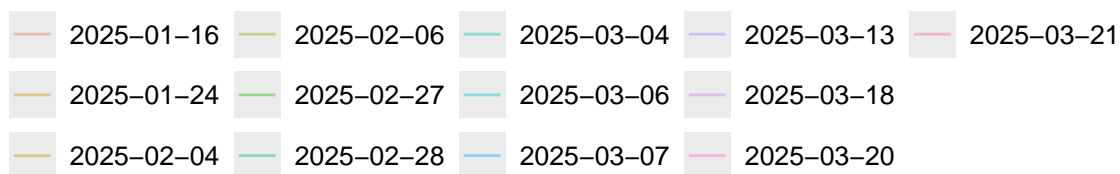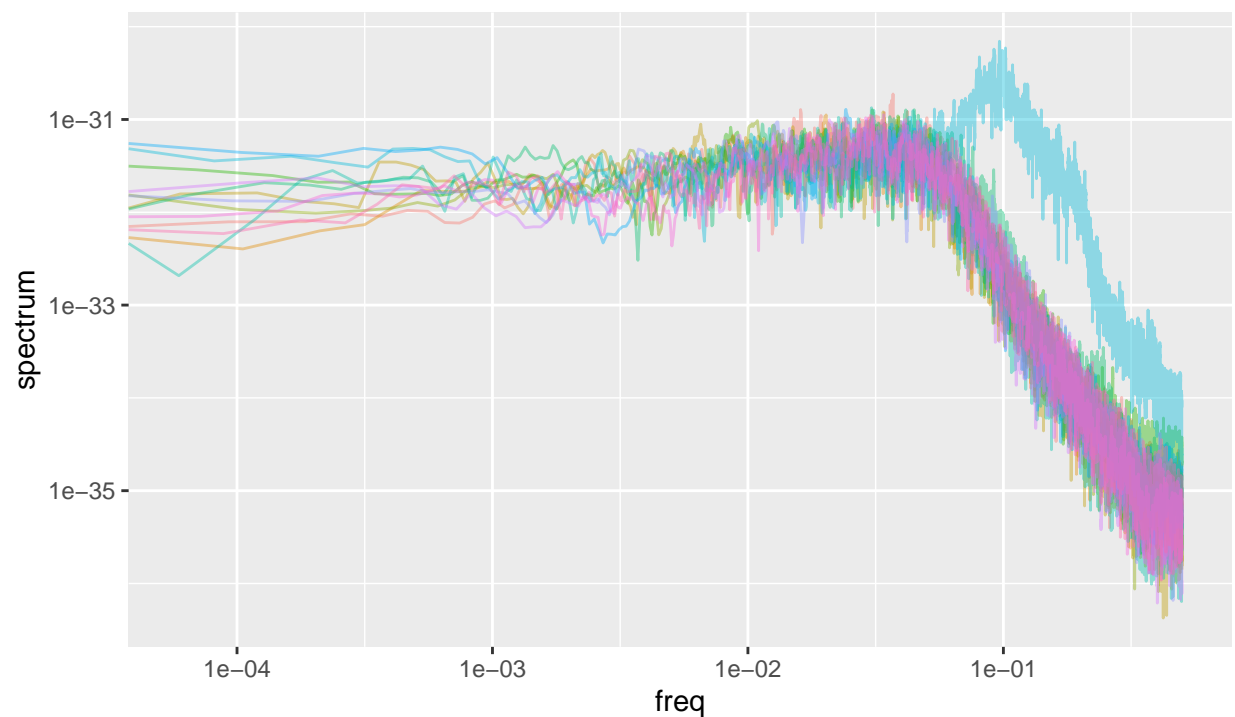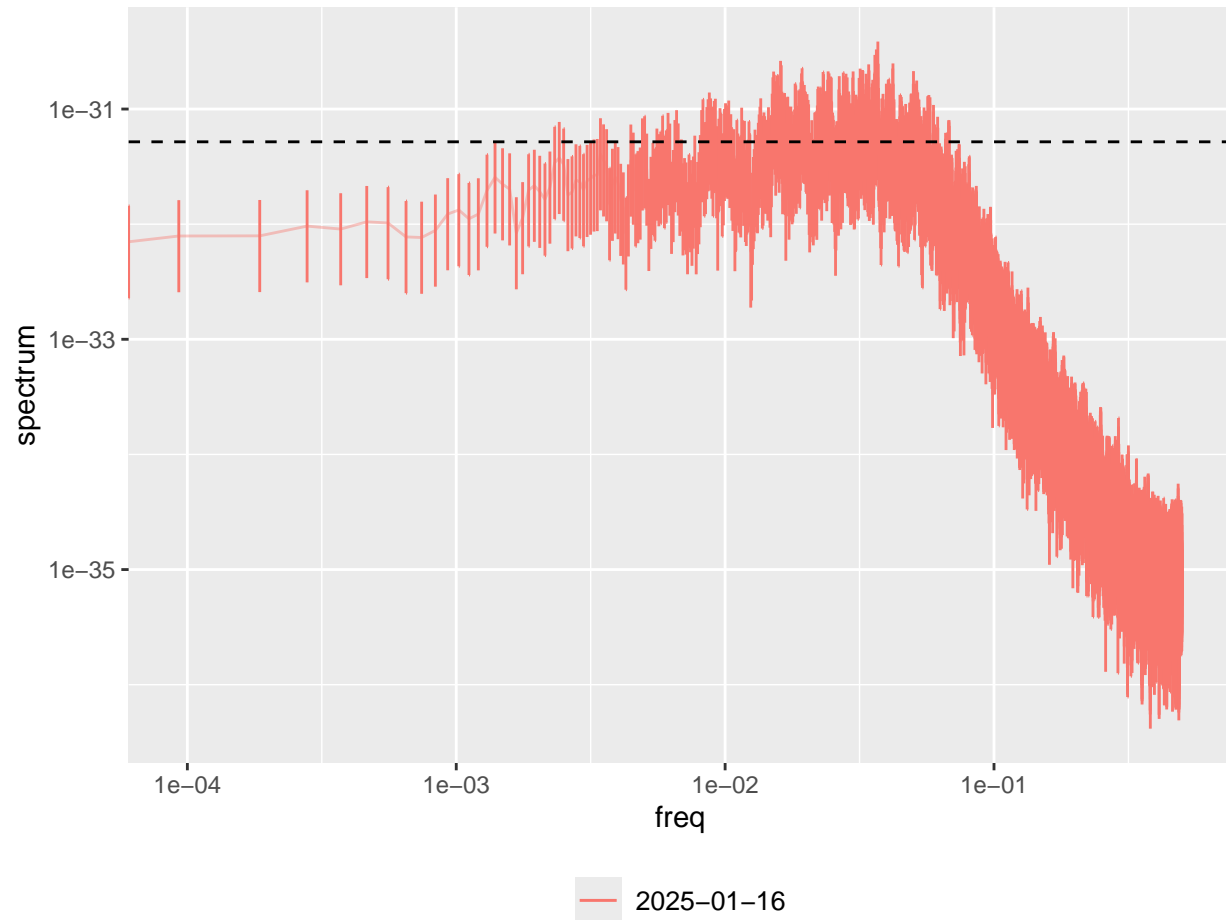## Warning in scale_x_log10(): log-10 transformation introduced infinite values.
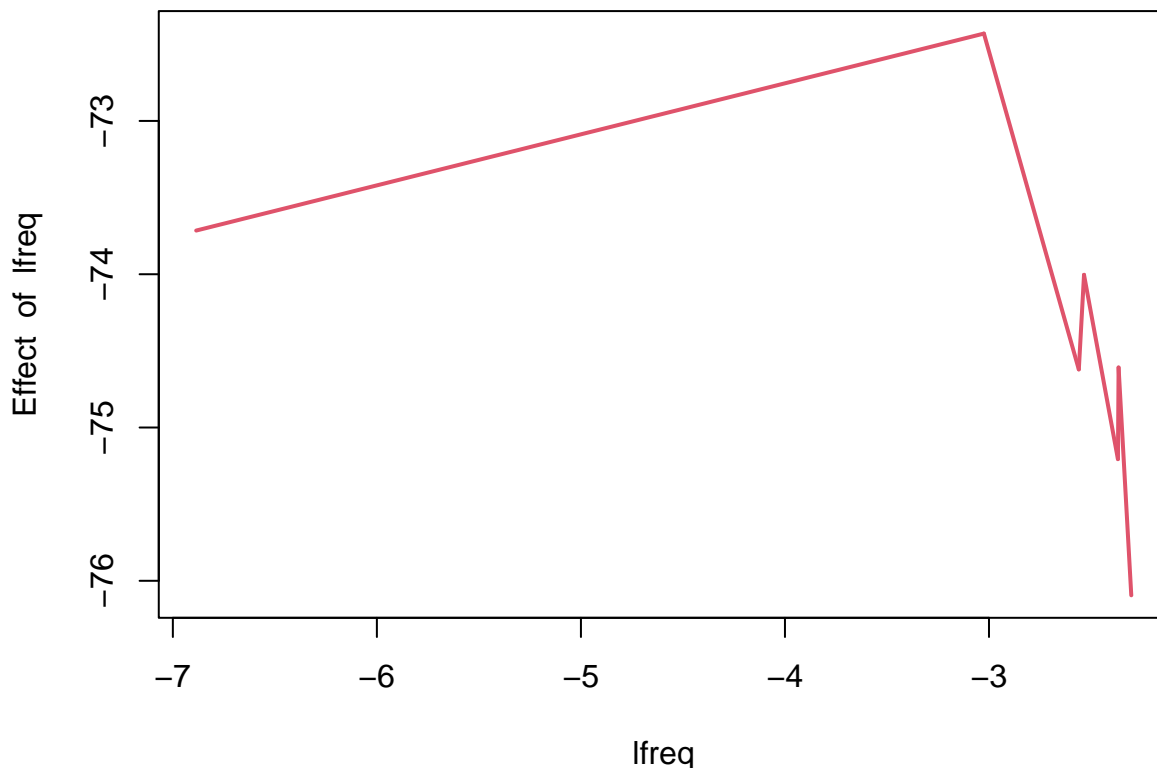
```
## Warning in scale_x_log10(): log-10 transformation introduced infinite values.
## log-10 transformation introduced infinite values.
```
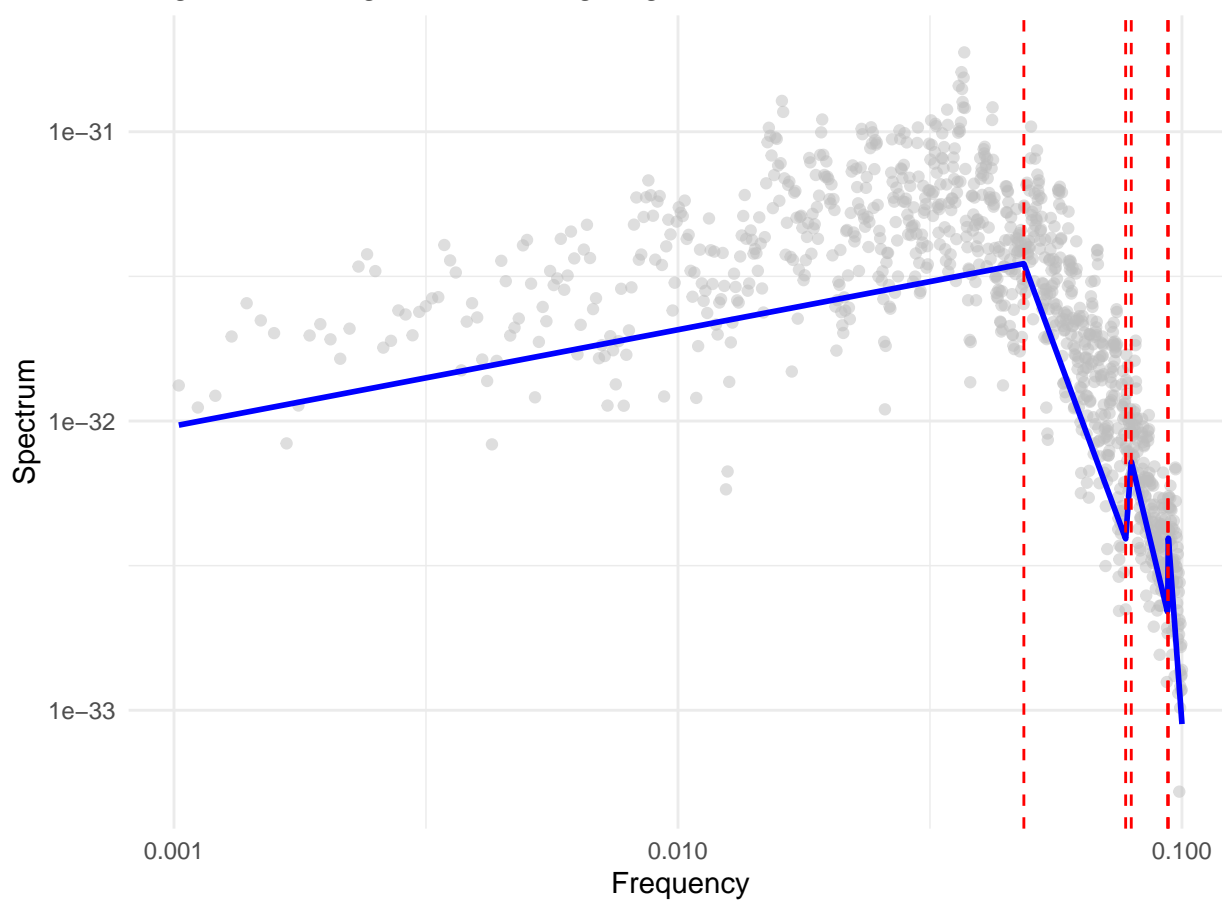


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```
## Loading required package: MASS

##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##     select

## Loading required package: nlme

##
## Attaching package: 'nlme'

## The following object is masked from 'package:dplyr':
##
##     collapse

##
##  ***Regression Model with Segmented Relationship(s)***
##
## Call:
## segmented.lm(obj = fit, seg.Z = ~lfreq, npsi = 5)
##
## Estimated Break-Point(s):
```

```
##               Est.  St.Err
## psi1.lfreq -3.025  0.056
## psi2.lfreq -2.560  0.006
## psi3.lfreq -2.534  0.009
## psi4.lfreq -2.368  0.001
## psi5.lfreq -2.365  0.001
##
## Coefficients of the linear terms:
##             Estimate Std. Error  t value Pr(>|t|)
## (Intercept)  -71.4230     0.4630 -154.260  < 2e-16 ***
## lfreq          0.3329     0.1007    3.307 0.000974 ***
## U1.lfreq      -5.0443     0.5668   -8.899       NA
## U2.lfreq      28.9141    13.8618    2.086       NA
## U3.lfreq     -31.4408    13.8653   -2.268       NA
## U4.lfreq     195.2812   117.8522    1.657       NA
## U5.lfreq    -211.9145   117.8582   -1.798       NA
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.827e+32 on 1054 degrees of freedom
## Multiple R-Squared: 0.6819,  Adjusted R-squared: 0.6786
##
## Boot restarting based on 6 samples. Last fit:
## Convergence attained in 6 iterations (rel. change 2.2436e-06)
```
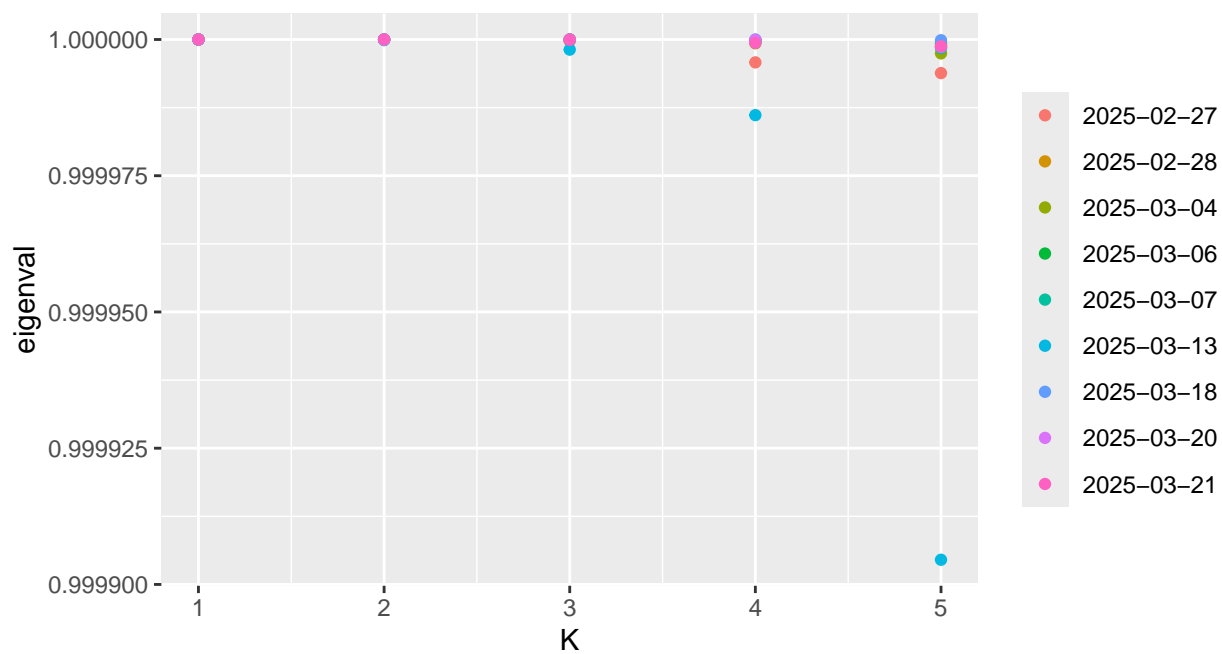


```
## Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use `linewidth` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
```
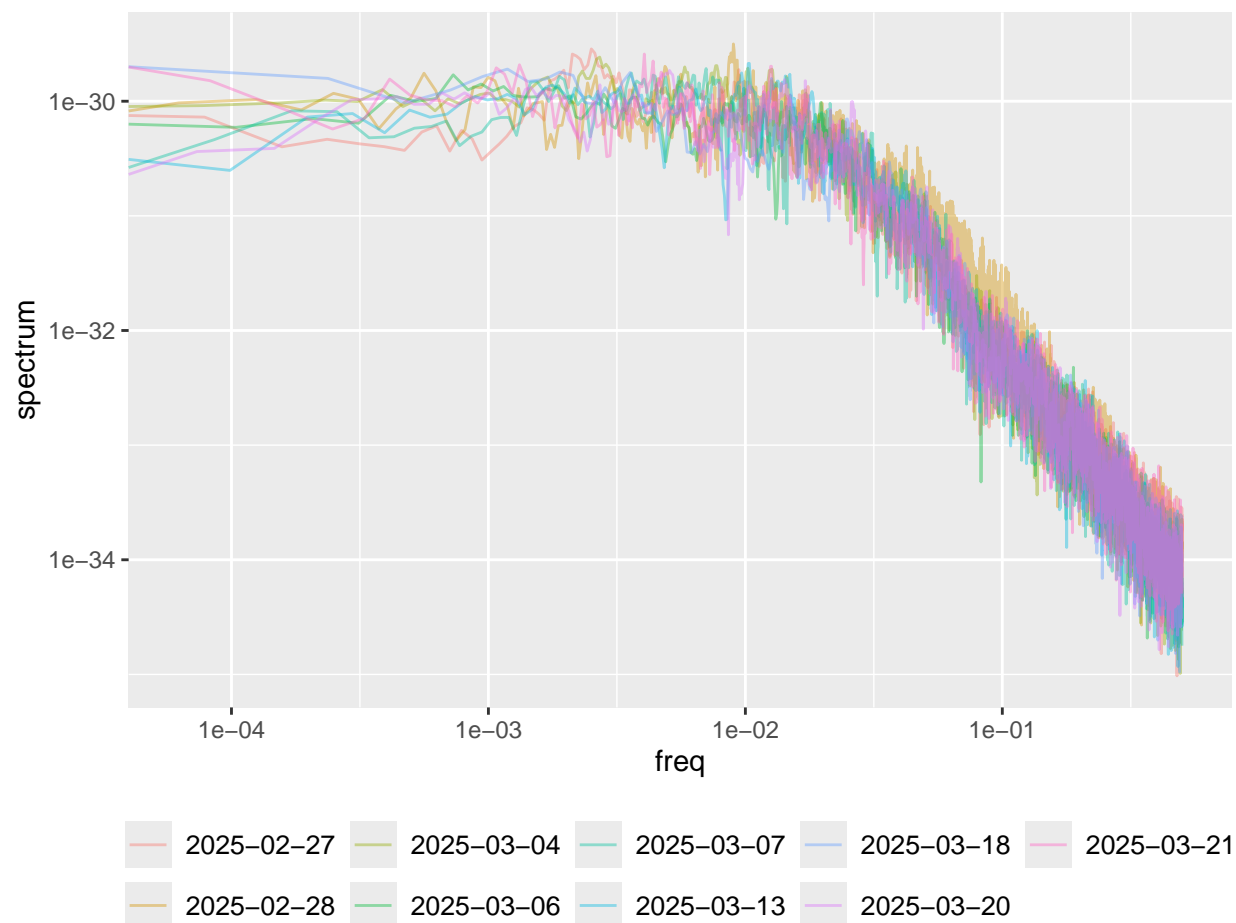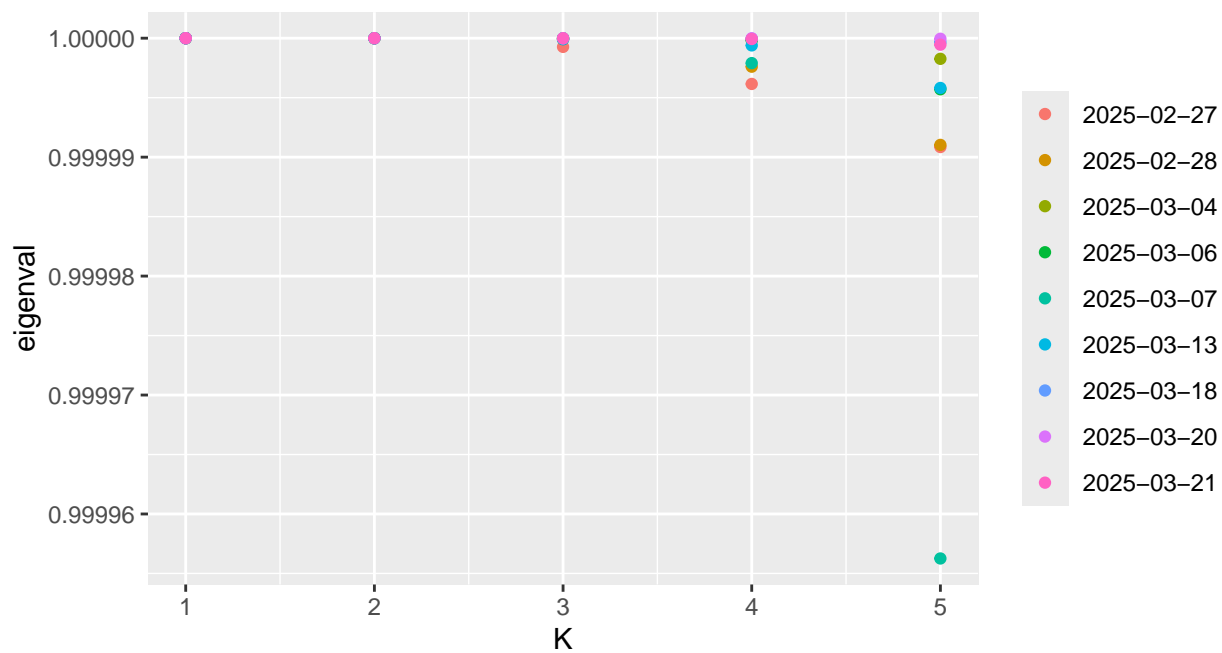
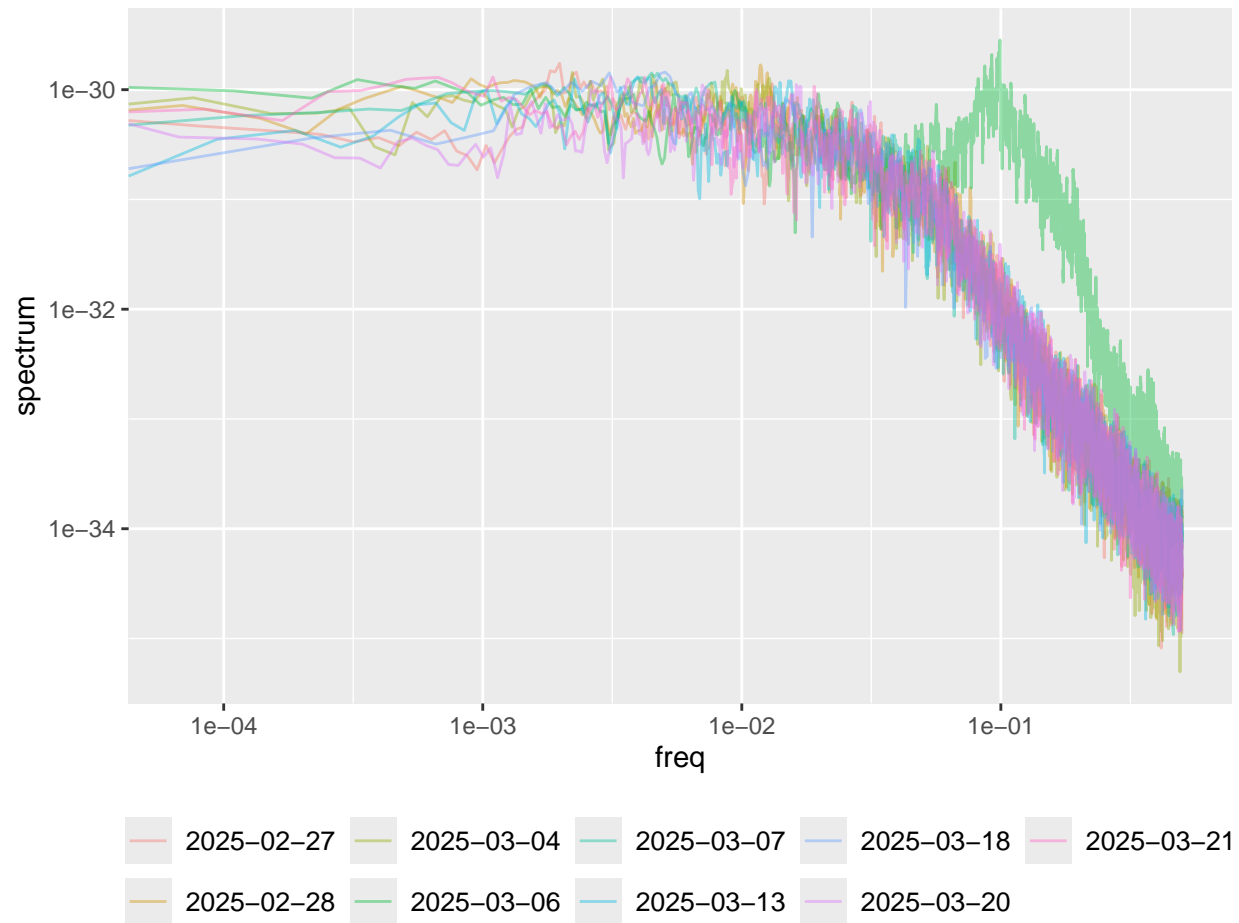## Segmented Regression on log–log scale



## AlSr

## Warning in scale_x_log10(): log-10 transformation introduced infinite values.



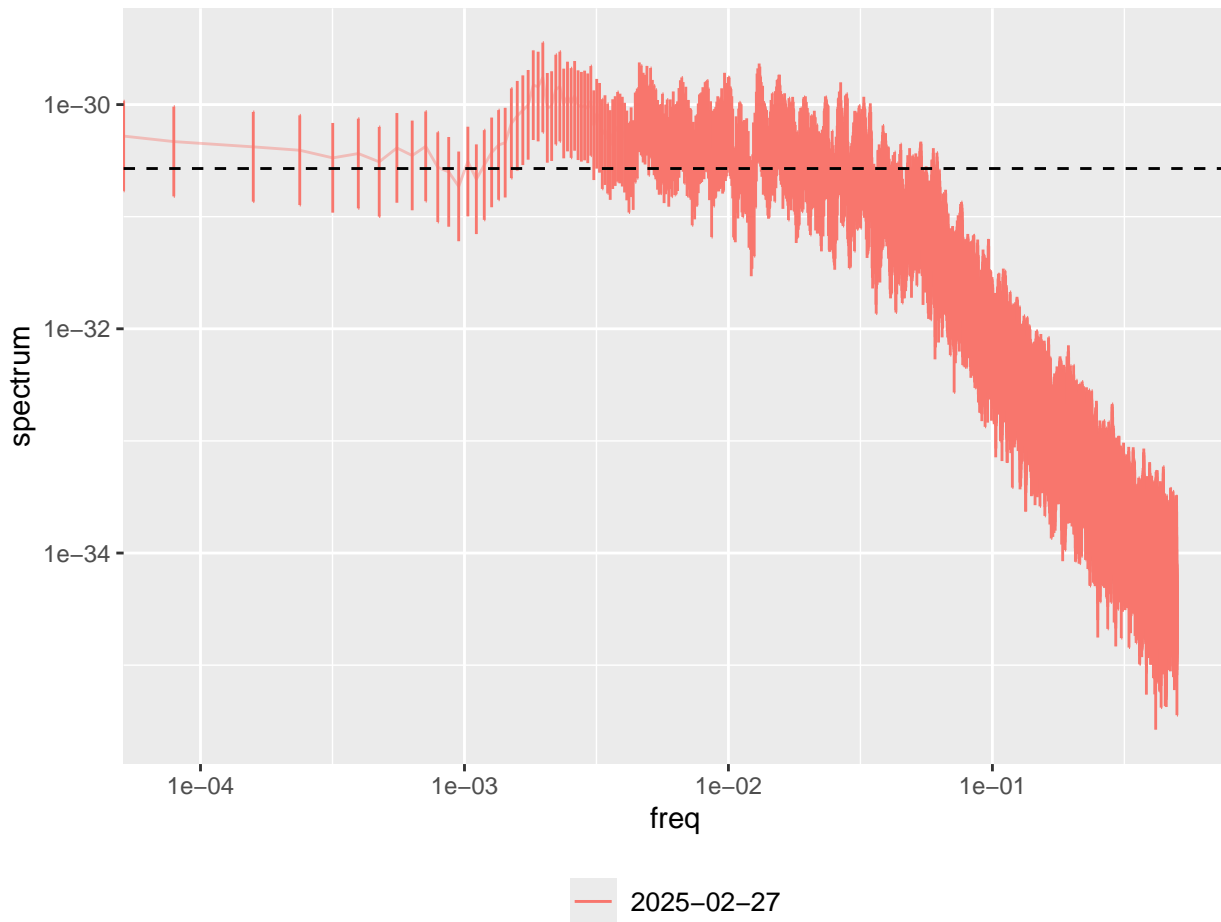**AlYb**

## Warning in scale_x_log10(): log-10 transformation introduced infinite values.

## Warning in scale_x_log10(): log-10 transformation introduced infinite values.
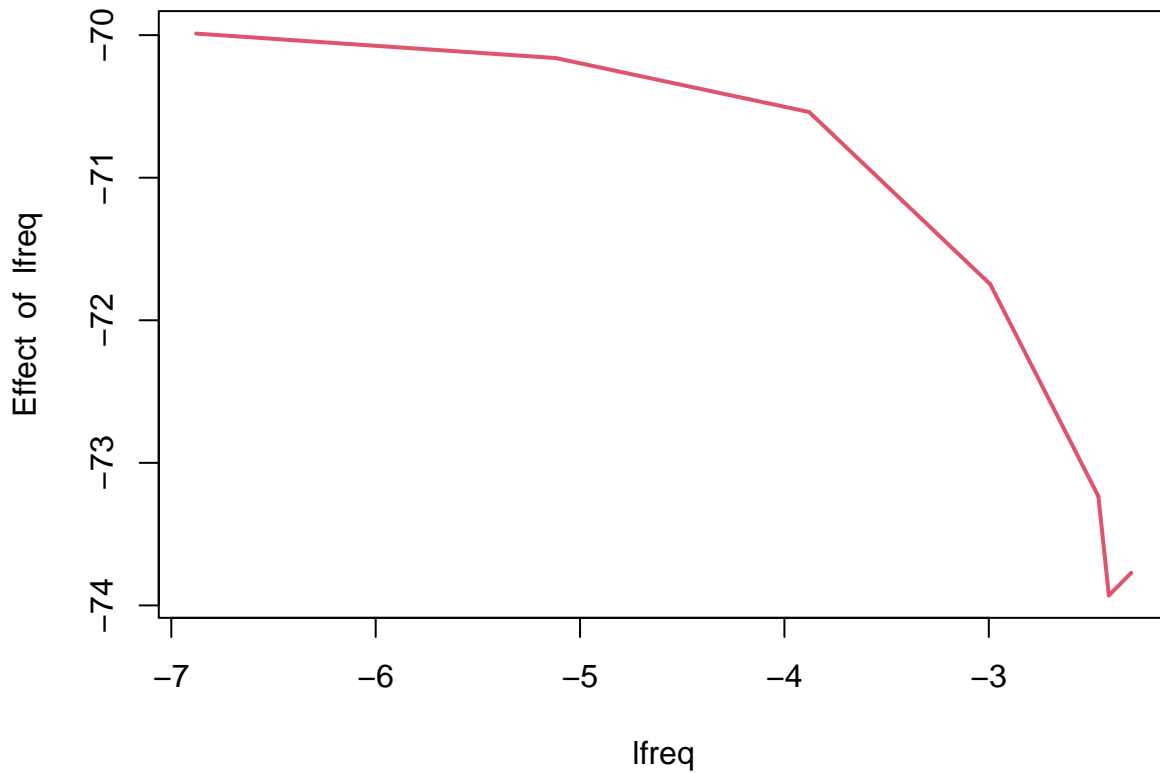## log-10 transformation introduced infinite values.

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```
## 
##  ***Regression Model with Segmented Relationship(s)***
## 
## Call:
## segmented.lm(obj = fit, seg.Z = ~lfreq, npsi = 5)
## 
## Estimated Break-Point(s):
##                Est. St.Err
## psi1.lfreq -5.120 10.831
## psi2.lfreq -3.879  0.846
## psi3.lfreq -2.993  0.137
## psi4.lfreq -2.464  0.007
## psi5.lfreq -2.412  0.003
## 
## Coefficients of the linear terms:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -70.65986   11.15159  -6.336 3.29e-10 ***
## lfreq        -0.09752    1.88237  -0.052    0.959
## U1.lfreq     -0.20765    2.38980  -0.087       NA
## U2.lfreq     -1.05791    1.58657  -0.667       NA
## U3.lfreq     -1.44769    0.63788  -2.270       NA
## U4.lfreq    -10.68352    1.63596  -6.530       NA
## U5.lfreq     14.93486    1.68257   8.876       NA
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 3.77e+31 on 1238 degrees of freedom
## Multiple R-Squared: 0.5909,   Adjusted R-squared: 0.5872
##
## Boot restarting based on 6 samples. Last fit:
## Convergence attained in 2 iterations (rel. change 6.0608e-07)
```

Segmented Regression on log–log scale