

Les exemples des fonctions graphiques de haut niveau

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1 Introduction

LES fonctions graphiques de haut niveau « *high level plot* », abrégé en `hplot` pour `help.search()`, disponibles dans un paquet, par exemple ici le paquet `graphics`, sont données par :

```
help.search(package = "graphics", keyword = "hplot", rebuild = TRUE)
```

LES paquets explorés ici sont ceux de la distribution  standard, c'est à dire ceux qui sont décrits comme `base` ou `recommended`. Leur liste peut être obtenue ainsi :

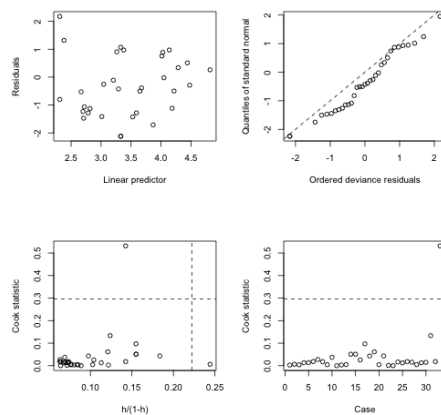
```
pcklist <- installed.packages()
pcklist <- pcklist[!is.na(pcklist[, "Priority"]), c(1, 3, 4)]
pcklist
```

	Package	Version	Priority
base	"base"	"3.3.1"	"base"
boot	"boot"	"1.3-18"	"recommended"
class	"class"	"7.3-14"	"recommended"
cluster	"cluster"	"2.0.5"	"recommended"
codetools	"codetools"	"0.2-15"	"recommended"
compiler	"compiler"	"3.3.1"	"base"
datasets	"datasets"	"3.3.1"	"base"
foreign	"foreign"	"0.8-67"	"recommended"
graphics	"graphics"	"3.3.1"	"base"
grDevices	"grDevices"	"3.3.1"	"base"
grid	"grid"	"3.3.1"	"base"
KernSmooth	"KernSmooth"	"2.23-15"	"recommended"
lattice	"lattice"	"0.20-34"	"recommended"
MASS	"MASS"	"7.3-45"	"recommended"
Matrix	"Matrix"	"1.2-7.1"	"recommended"
methods	"methods"	"3.3.1"	"base"
mgcv	"mgcv"	"1.8-15"	"recommended"
nlme	"nlme"	"3.1-131"	"recommended"
nnet	"nnet"	"7.3-12"	"recommended"
parallel	"parallel"	"3.3.1"	"base"
rpart	"rpart"	"4.1-10"	"recommended"
spatial	"spatial"	"7.3-11"	"recommended"
splines	"splines"	"3.3.1"	"base"
stats	"stats"	"3.3.1"	"base"
stats4	"stats4"	"3.3.1"	"base"
survival	"survival"	"2.39-5"	"recommended"
tcltk	"tcltk"	"3.3.1"	"base"
tools	"tools"	"3.3.1"	"base"
utils	"utils"	"3.3.1"	"base"

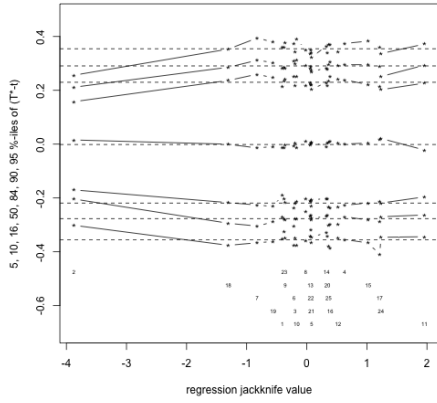
LES graphiques ci-après sont ceux que l'on obtient en exécutant les exemples de la documentation, par exemple : `example(plot)`. On peut utiliser `par(ask = FALSE)` pour les faire apparaître plus progressivement sur la fenêtre graphique.

2 boot 1.3-18

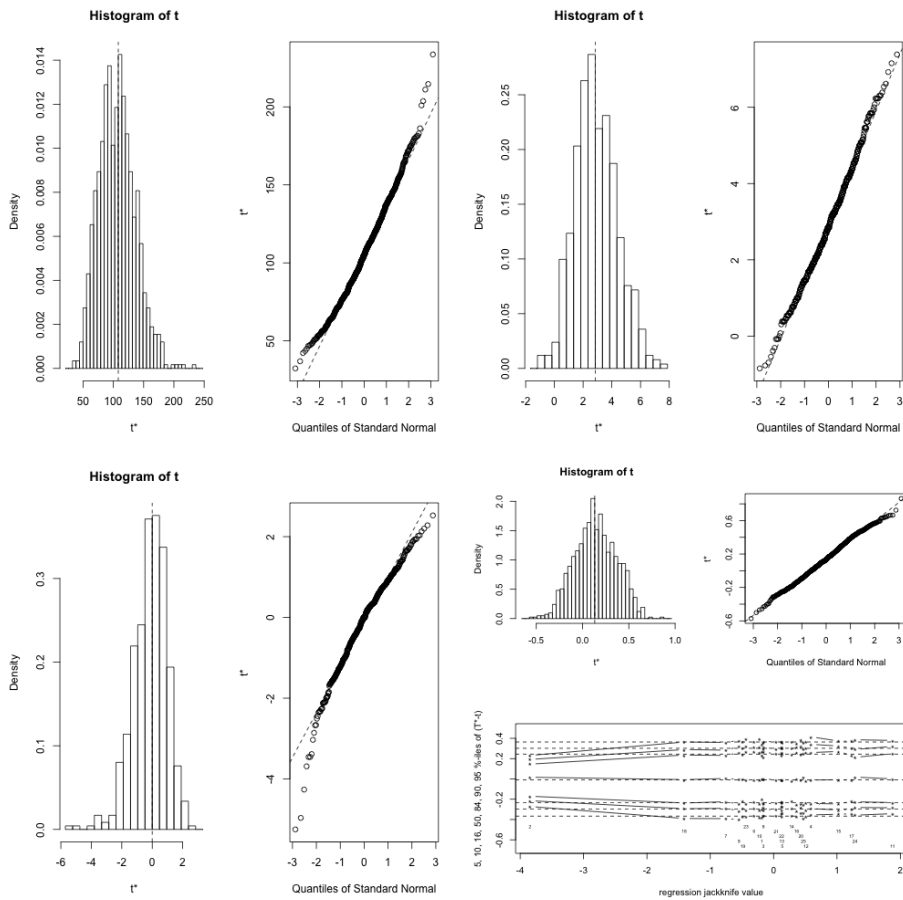
2.1 glm.diag.plots : Diagnostics plots for generalized linear models



2.2 jack.after.boot : Jackknife-after-Bootstrap Plots

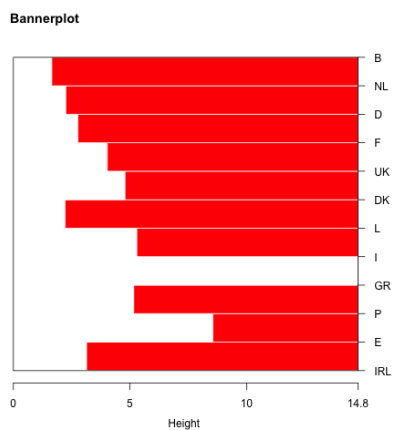


2.3 plot.boot : Plots of the Output of a Bootstrap Simulation

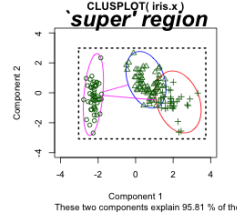
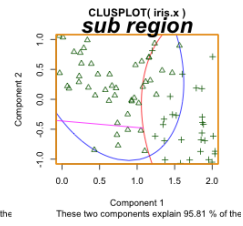
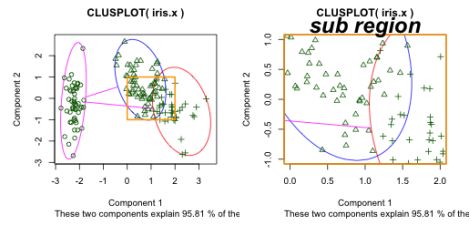
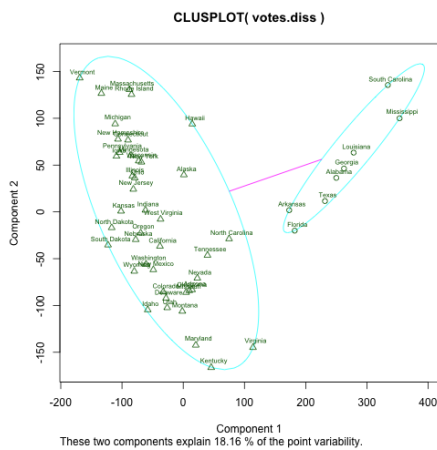
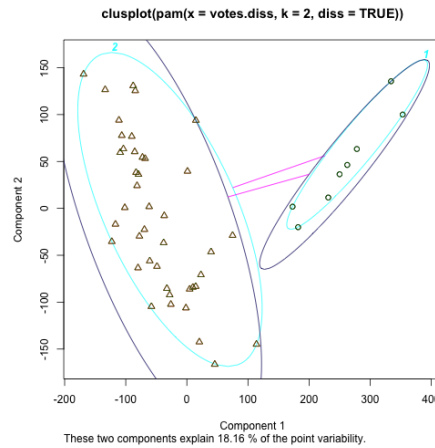
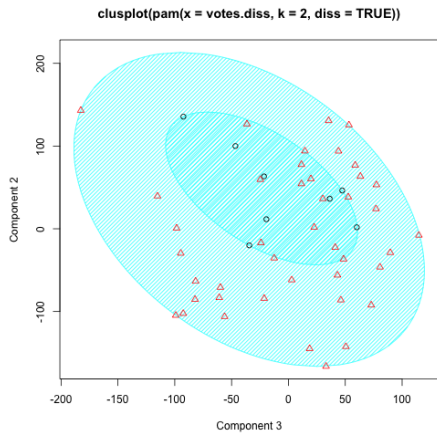
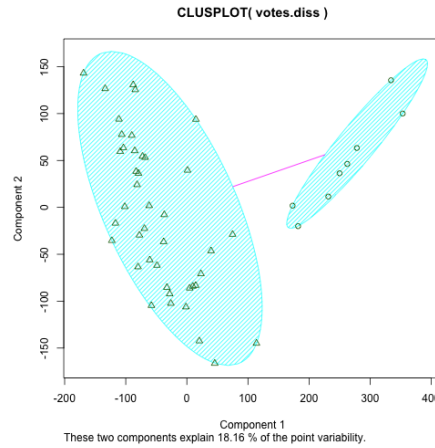
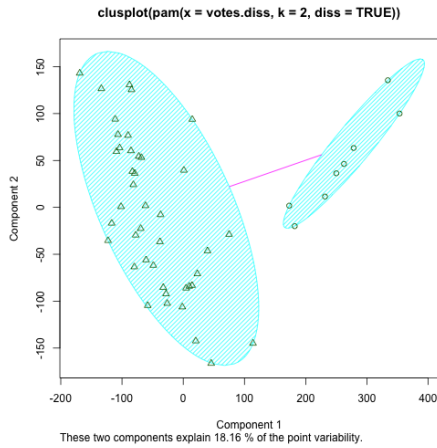


3 cluster 2.0.5

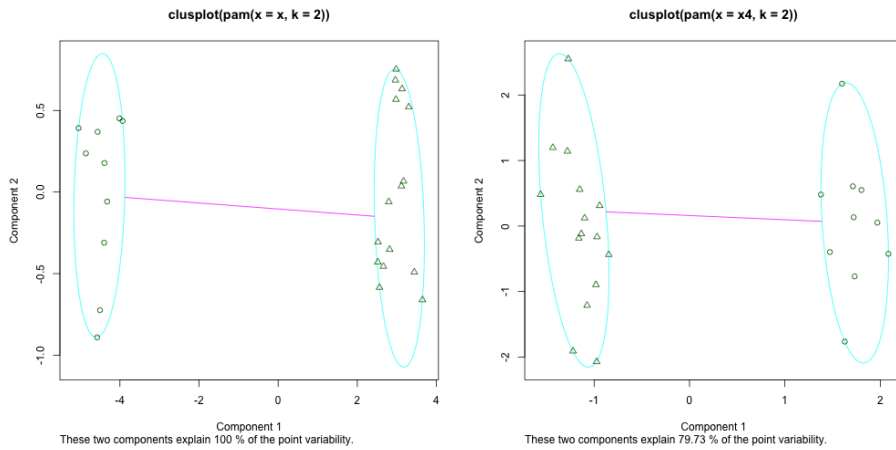
3.1 bannerplot : Plot Banner (of Hierarchical Clustering)



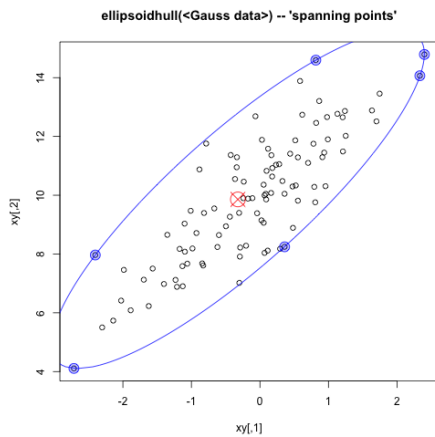
3.2 clusplot.default : Bivariate Cluster Plot (clusplot) Default Method



3.3 clusplot : Bivariate Cluster Plot (of a Partitioning Object)

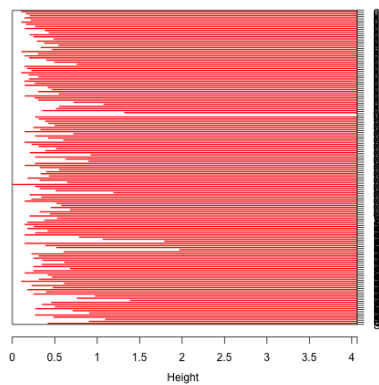


3.4 ellipsoidhull : Compute the Ellipsoid Hull or Spanning Ellipsoid of a Point Set

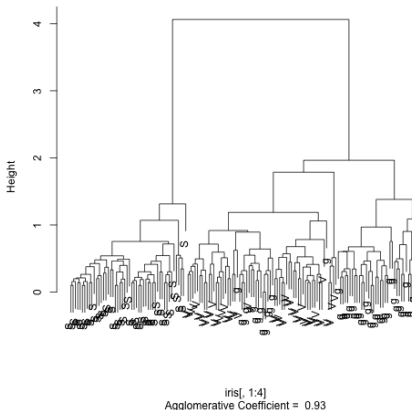


3.5 plot.agnes : Plots of an Agglomerative Hierarchical Clustering

Banner of agnes(x = iris[, 1:4])

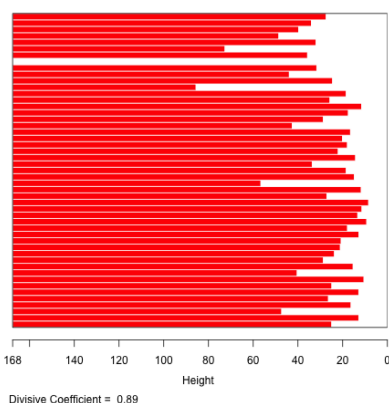


Dendrogram of agnes(x = iris[, 1:4])

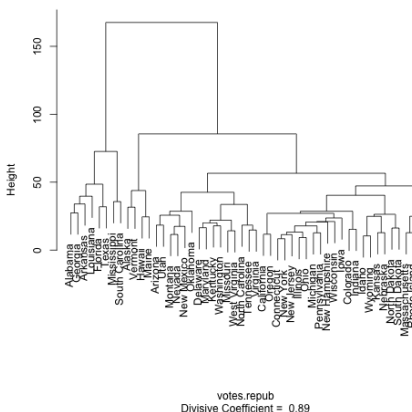


3.6 plot.diana : Plots of a Divisive Hierarchical Clustering

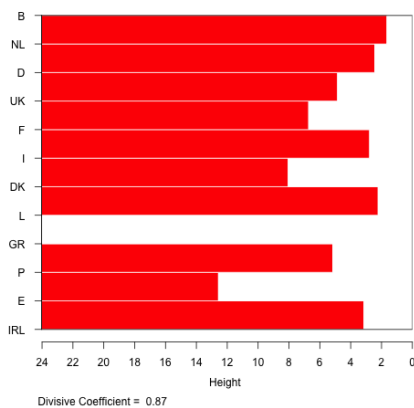
Banner of diana(x = votes.repub, metric = "manhattan", stand = 1)



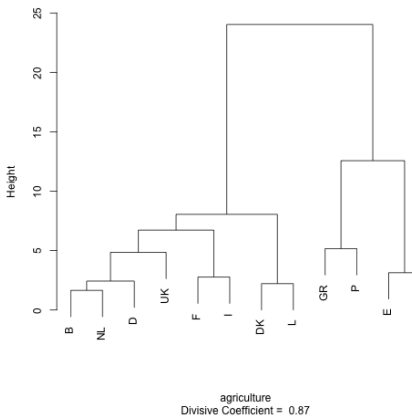
Dendrogram of diana(x = votes.repub, metric = "manhattan", stand = TRI)

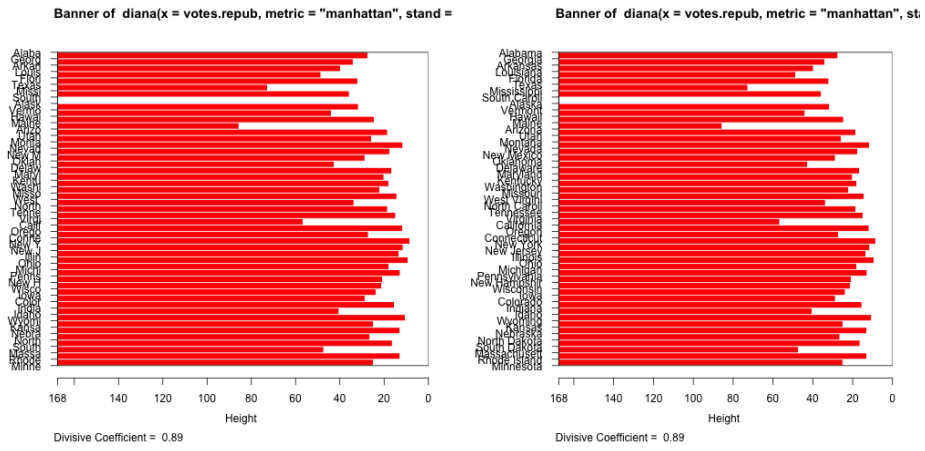


Banner of diana(x = agriculture)



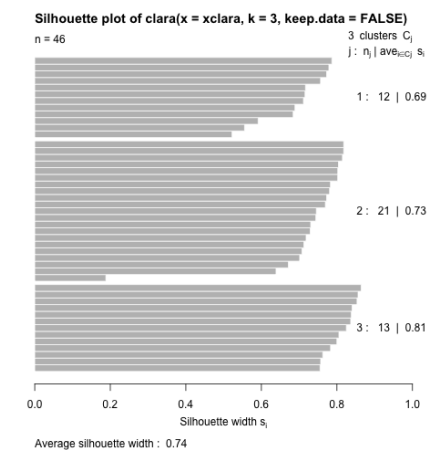
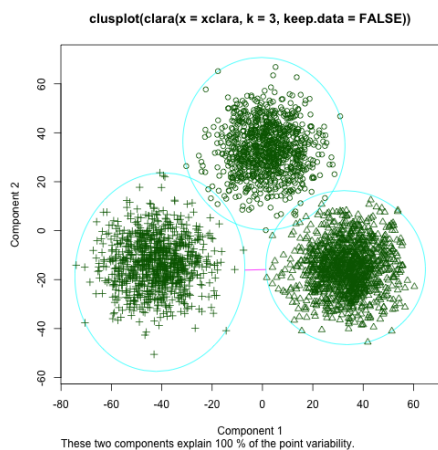
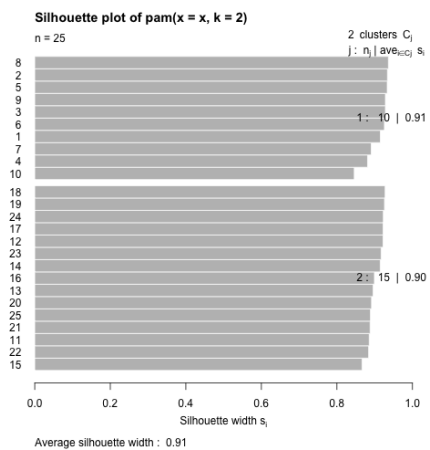
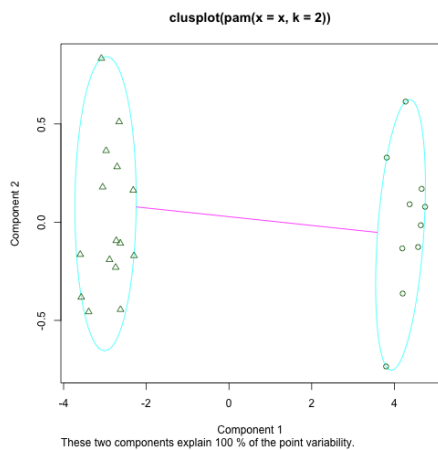
Dendrogram of diana(x = agriculture)



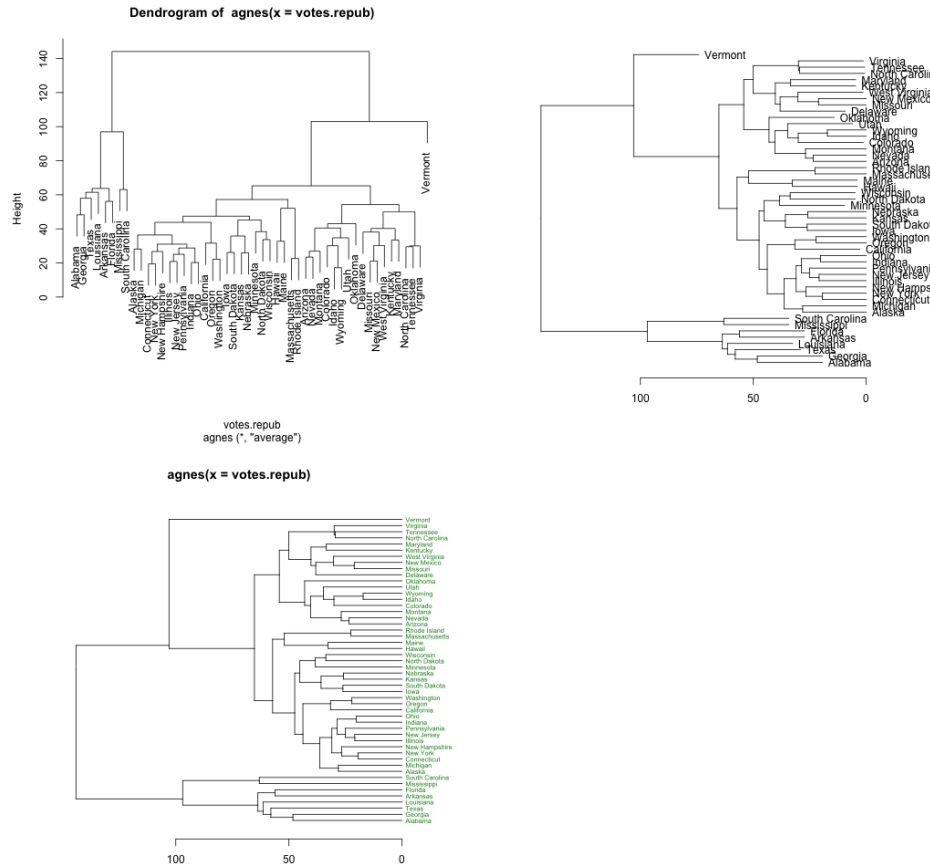


3.7 plot.mona : Banner of Monothetic Divisive Hierarchical Clusterings

3.8 plot.partition : Plot of a Partition of the Data Set

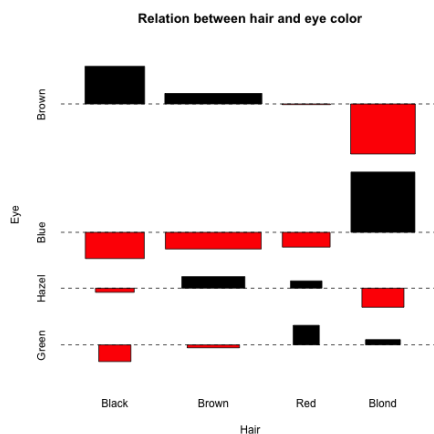


3.9 ptree : Plot Clustering Tree of a Hierarchical Clustering

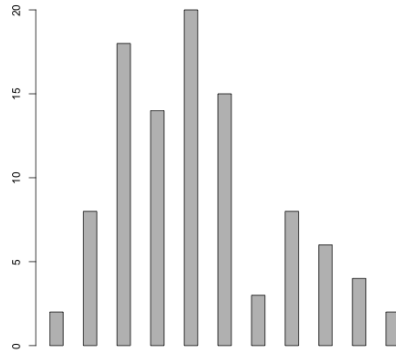
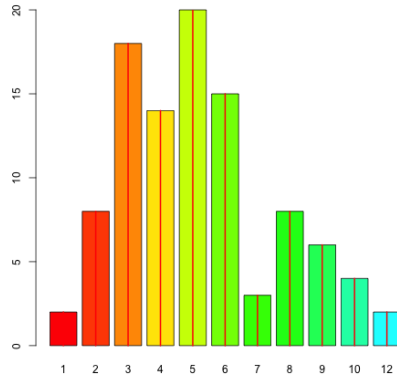


4 graphics 3.3.1

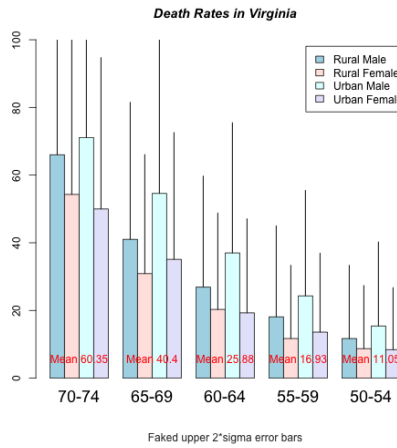
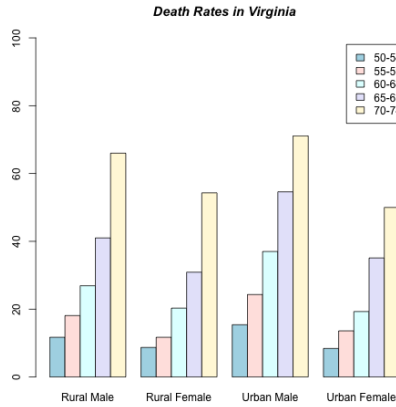
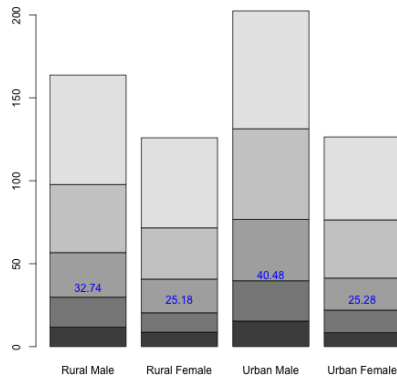
4.1 assocplot : Association Plots



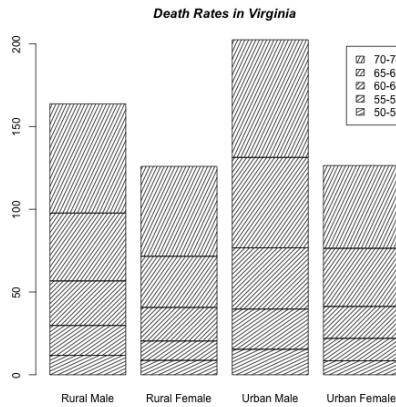
4.2 barplot : Bar Plots

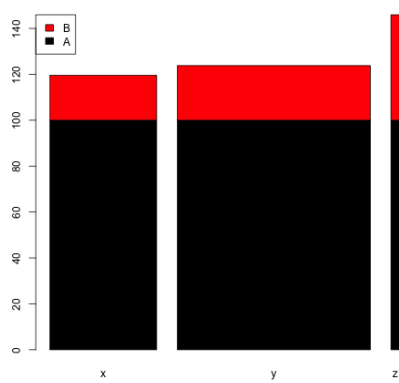
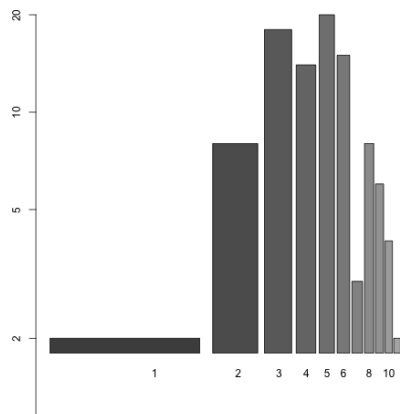
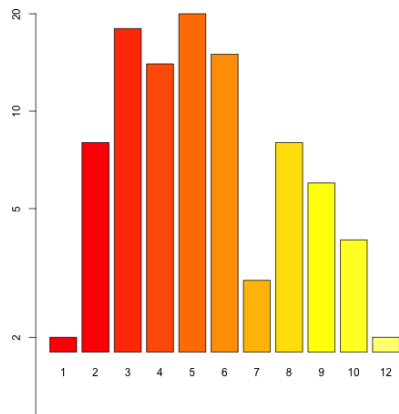
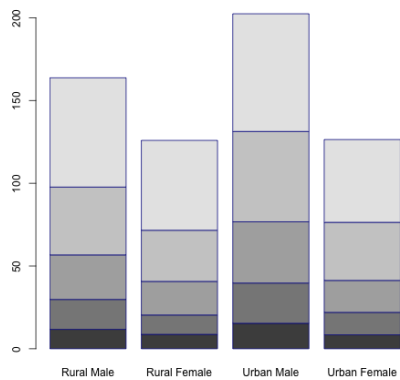


barplot(..., space= 1.5, axisnames = FALSE)

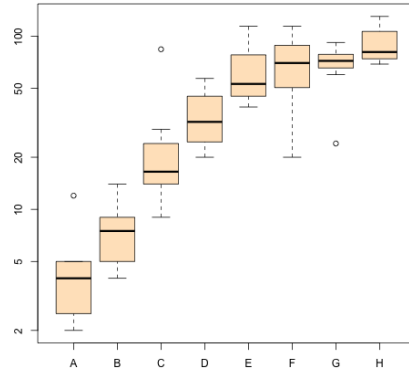
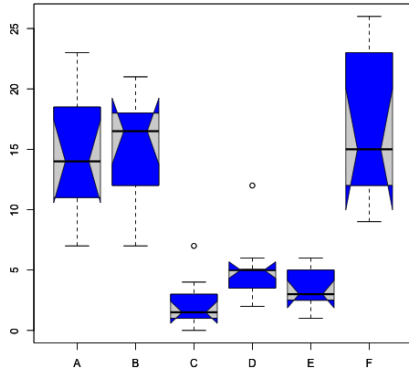


Faked upper 2*sigma error bars

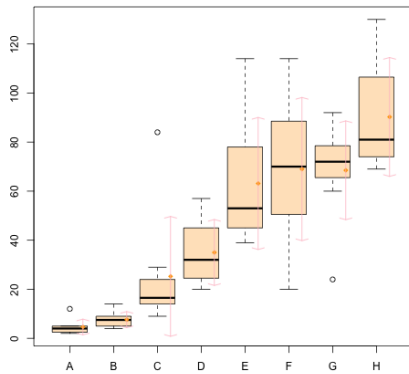




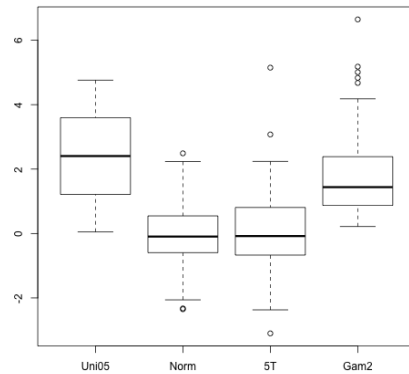
4.3 boxplot : Box Plots



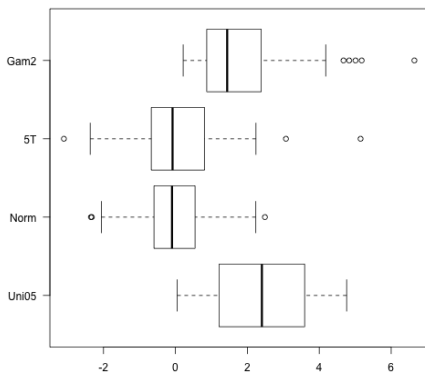
Comparing boxplot(s) and non-robust mean +/- SD



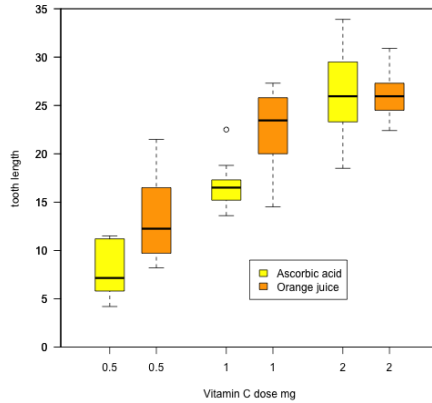
boxplot(as.data.frame(mat), main = ...)



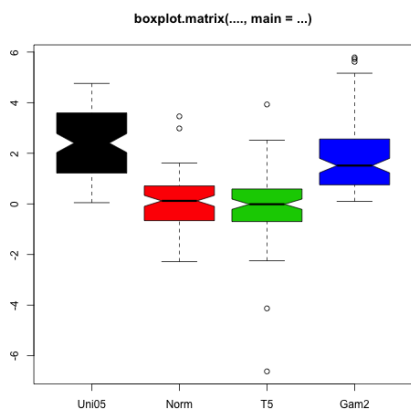
boxplot(*, horizontal = TRUE)



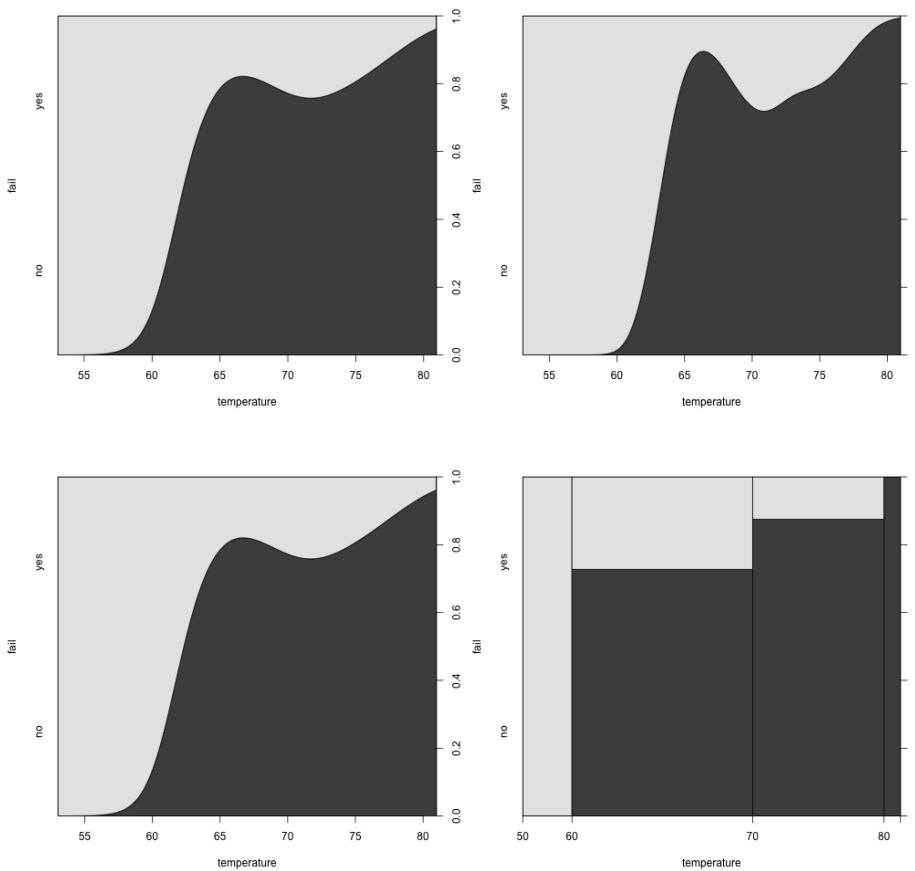
Guinea Pigs' Tooth Growth

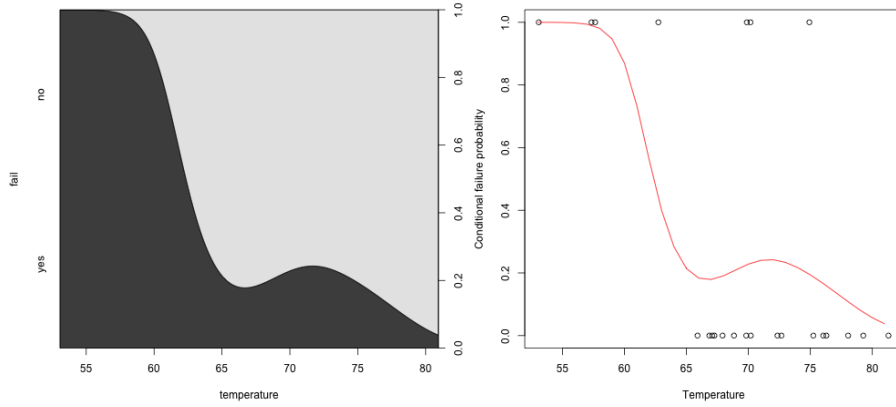


4.4 boxplot.matrix : Draw a Boxplot for each Column (Row) of a Matrix

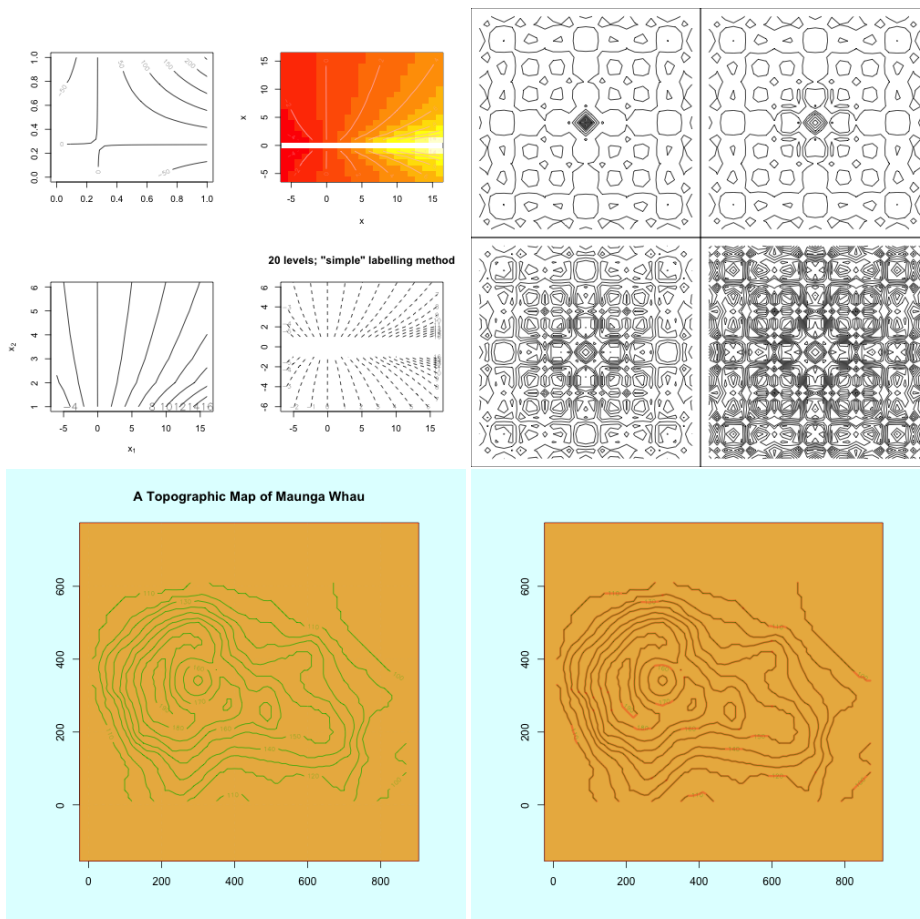


4.5 cdplot : Conditional Density Plots

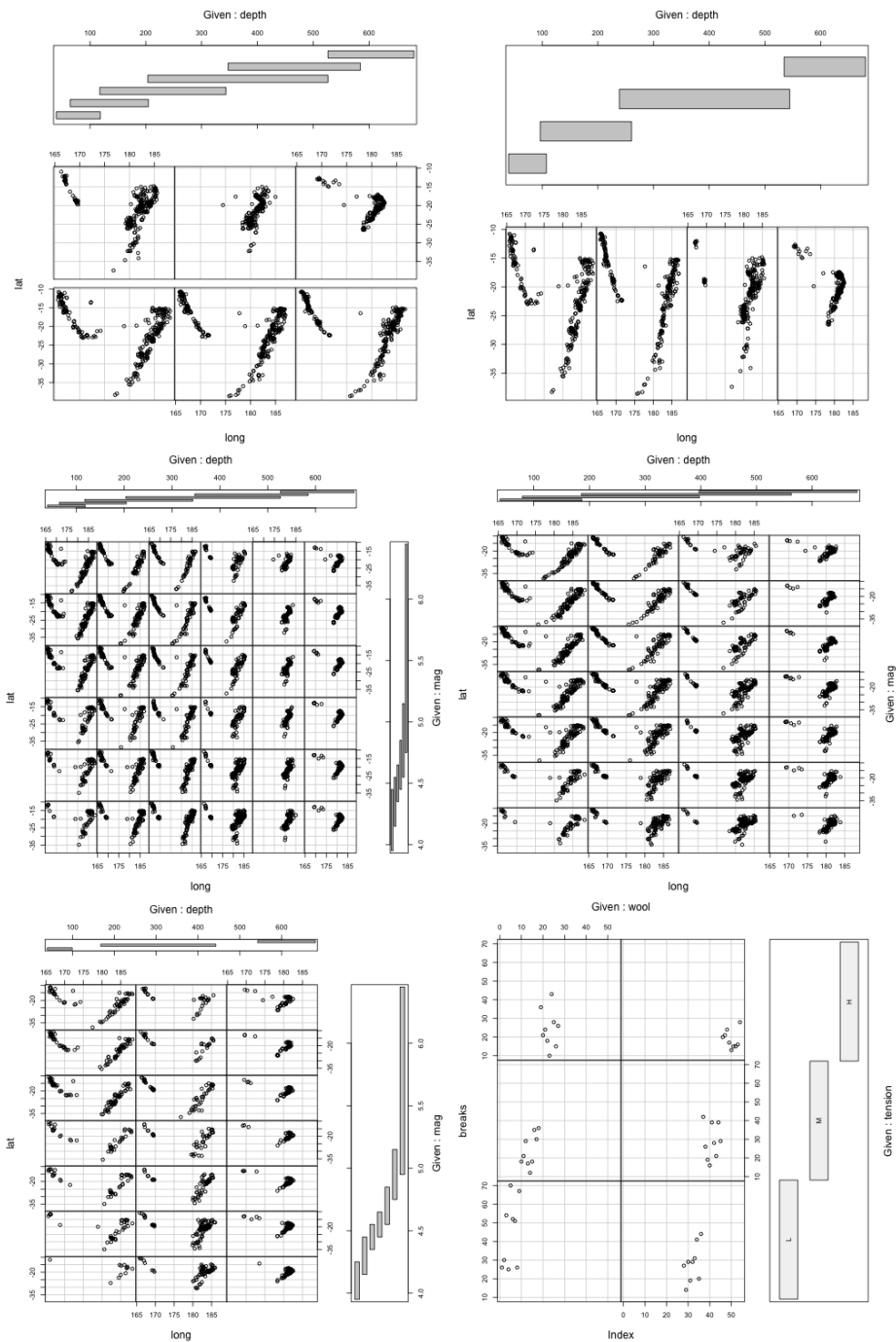


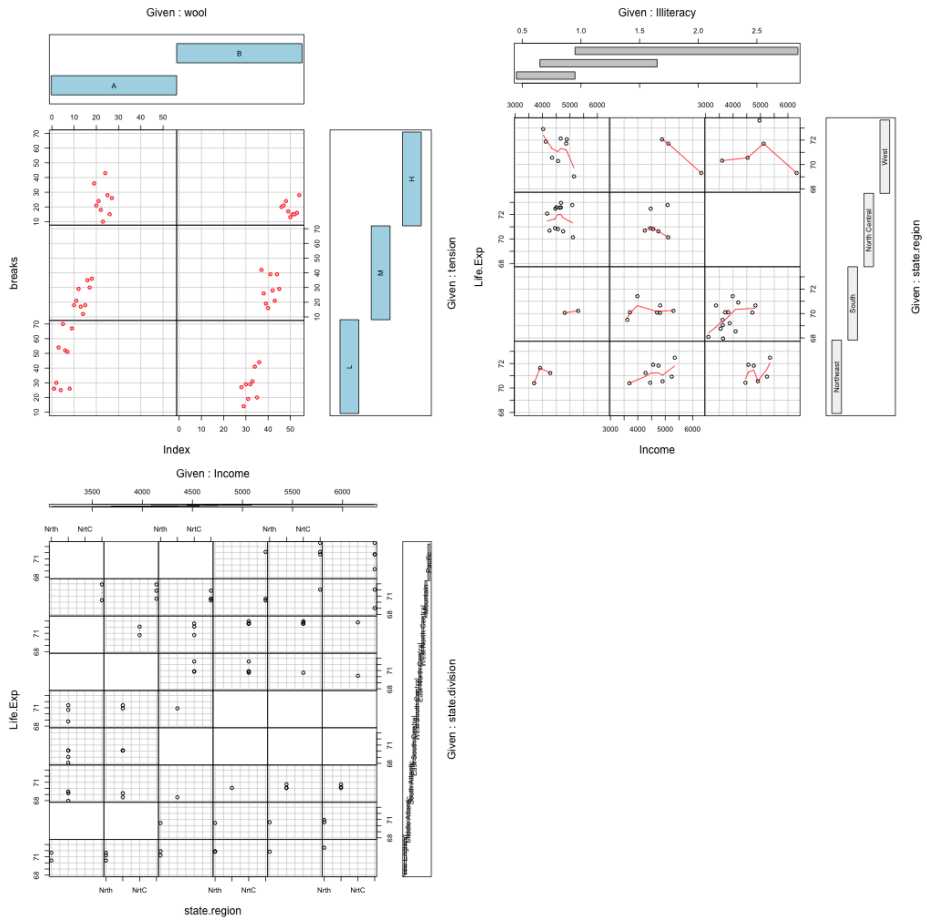


4.6 contour : Display Contours

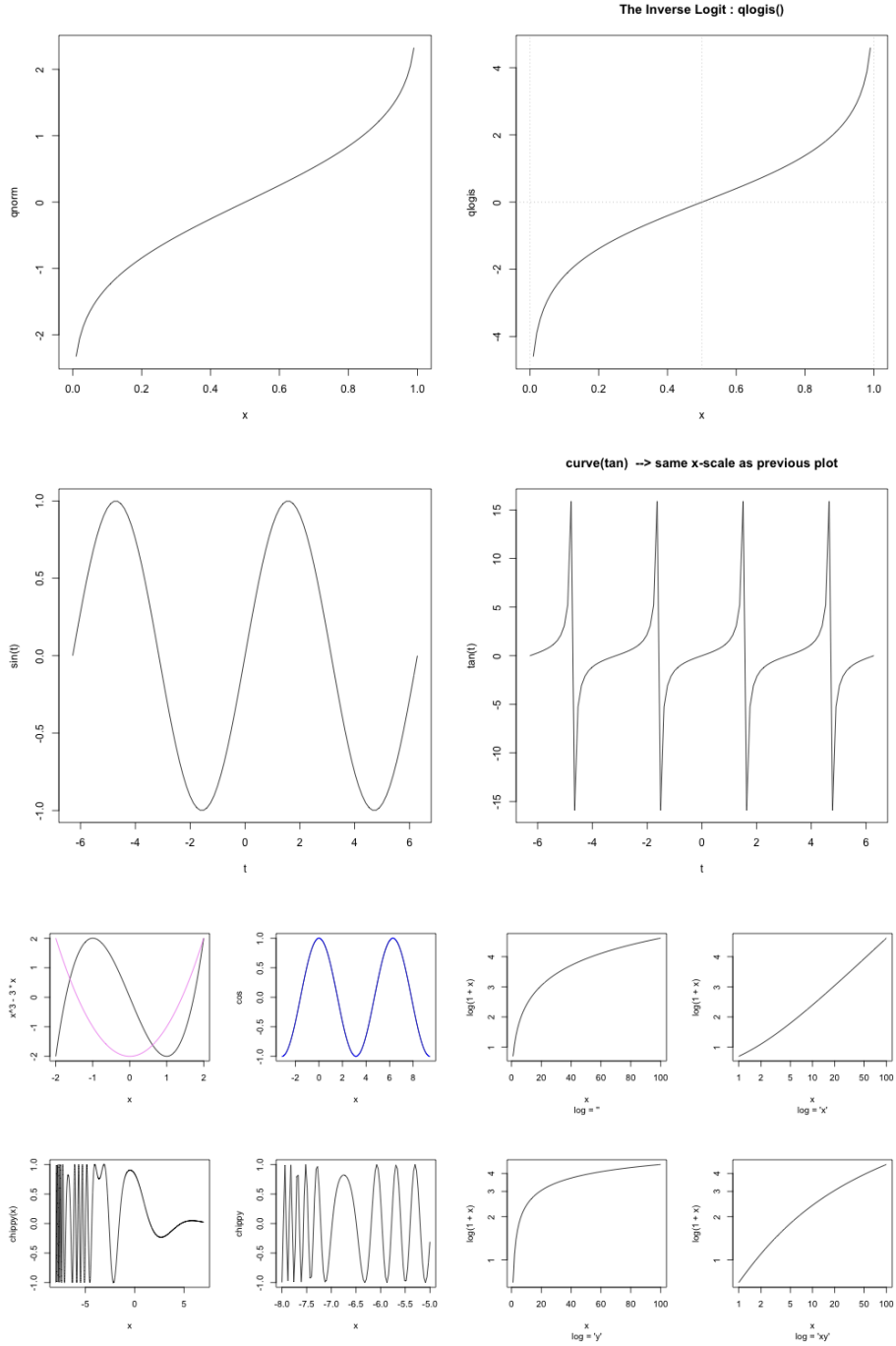


4.7 coplot : Conditioning Plots

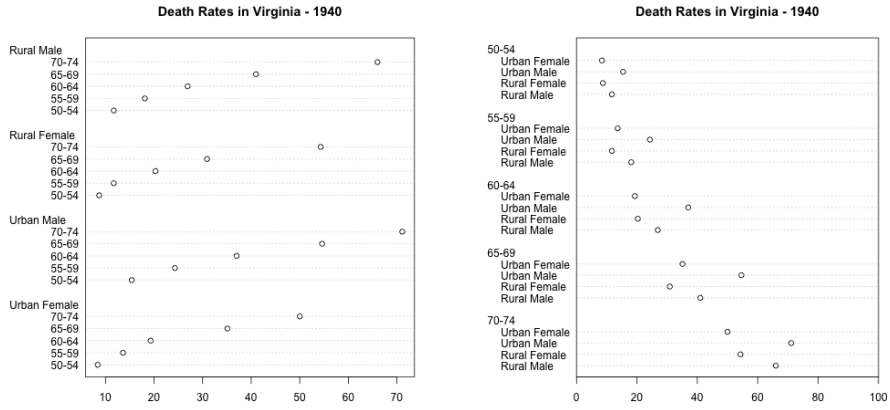




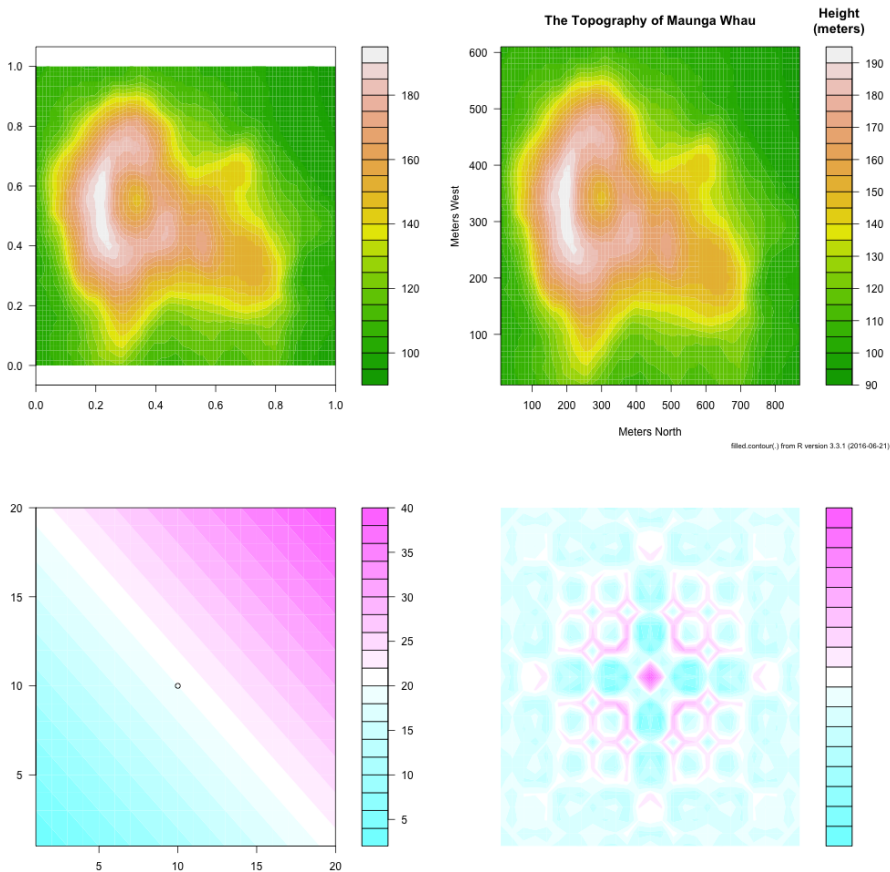
4.8 curve : Draw Function Plots

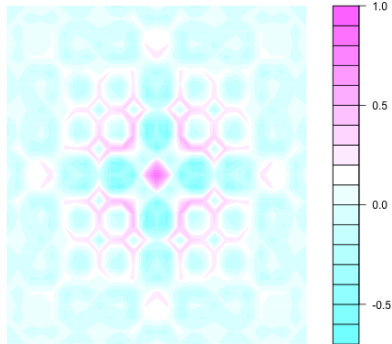


4.9 dotchart : Cleveland's Dot Plots

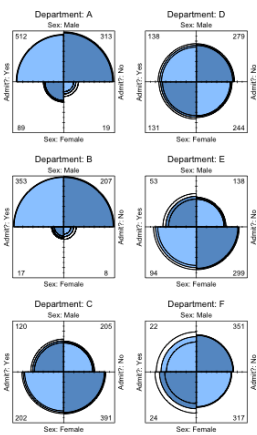
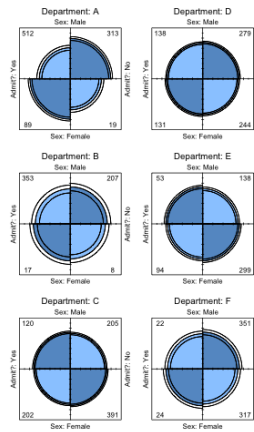
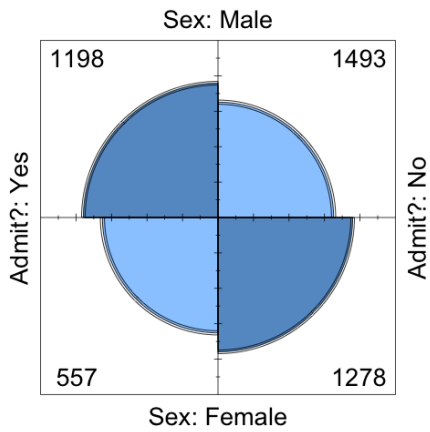


4.10 filled.contour : Level (Contour) Plots

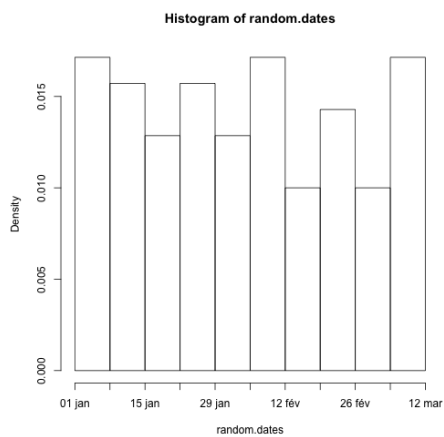
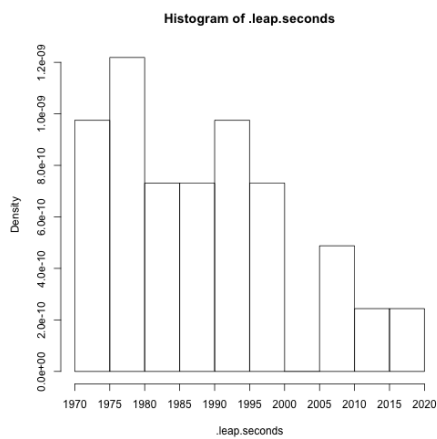
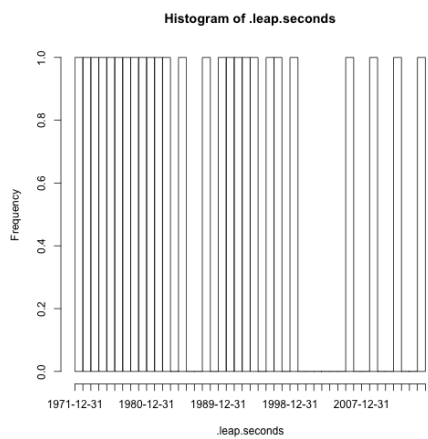




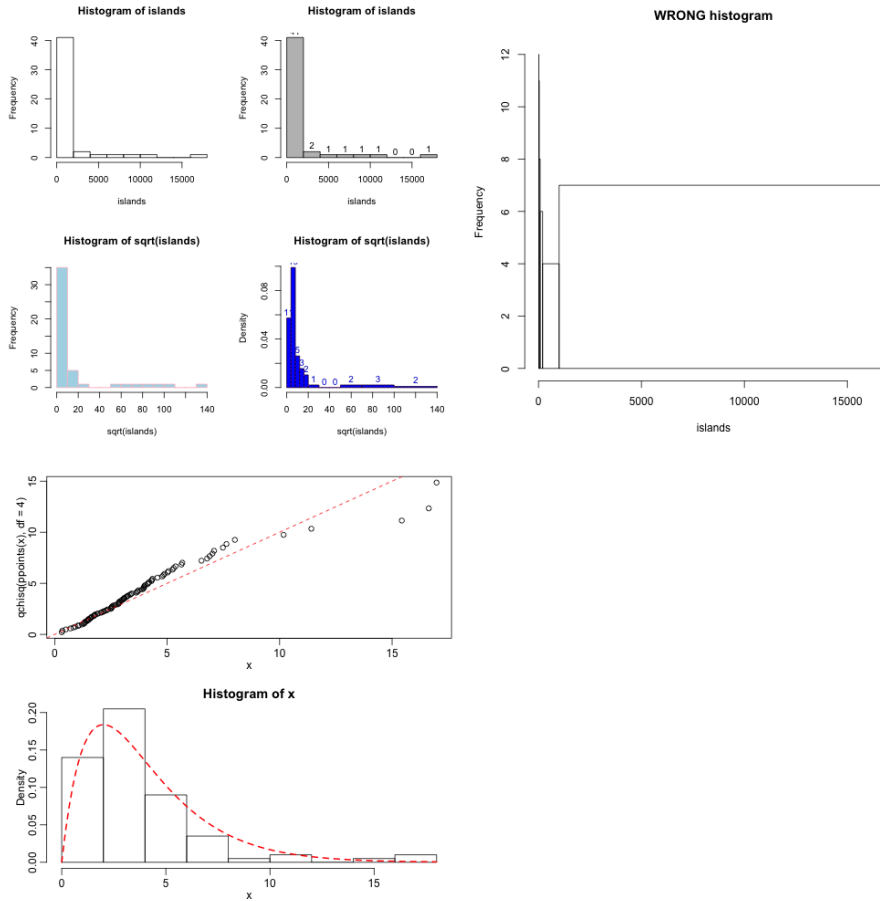
4.11 fourfoldplot : Fourfold Plots



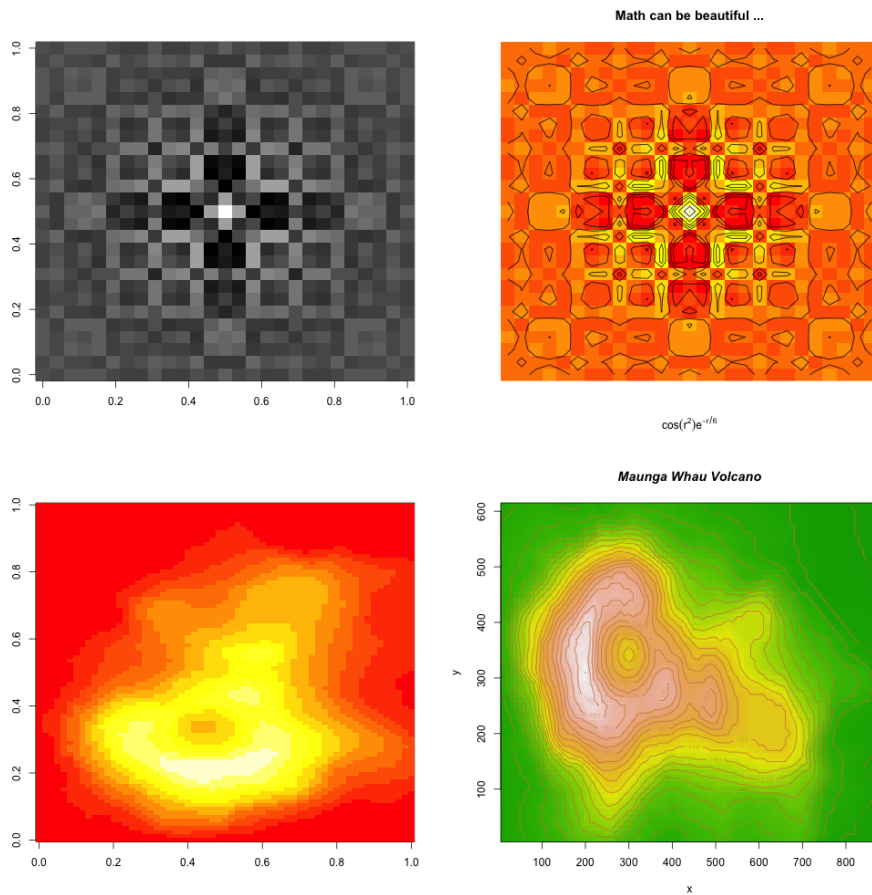
4.12 hist.POSIXt : Histogram of a Date or Date-Time Object



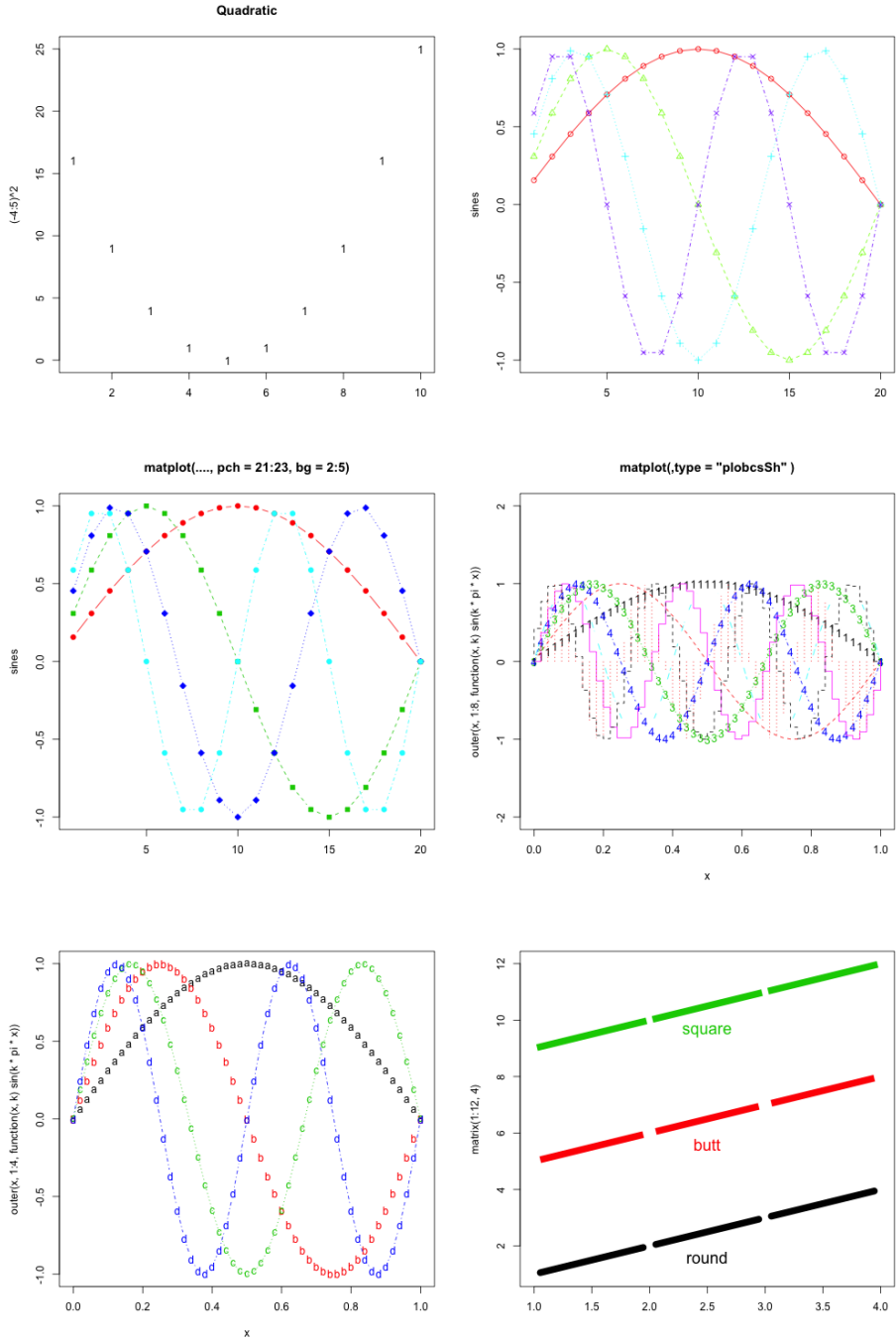
4.13 hist : Histograms

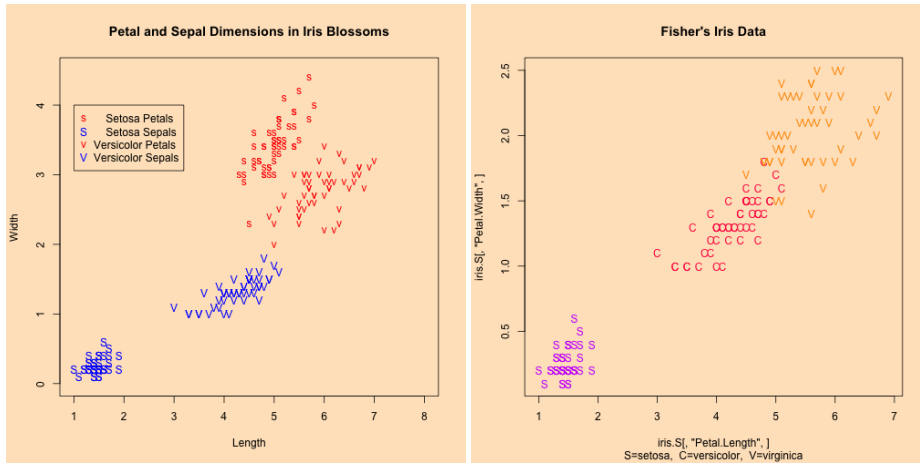


4.14 image : Display a Color Image

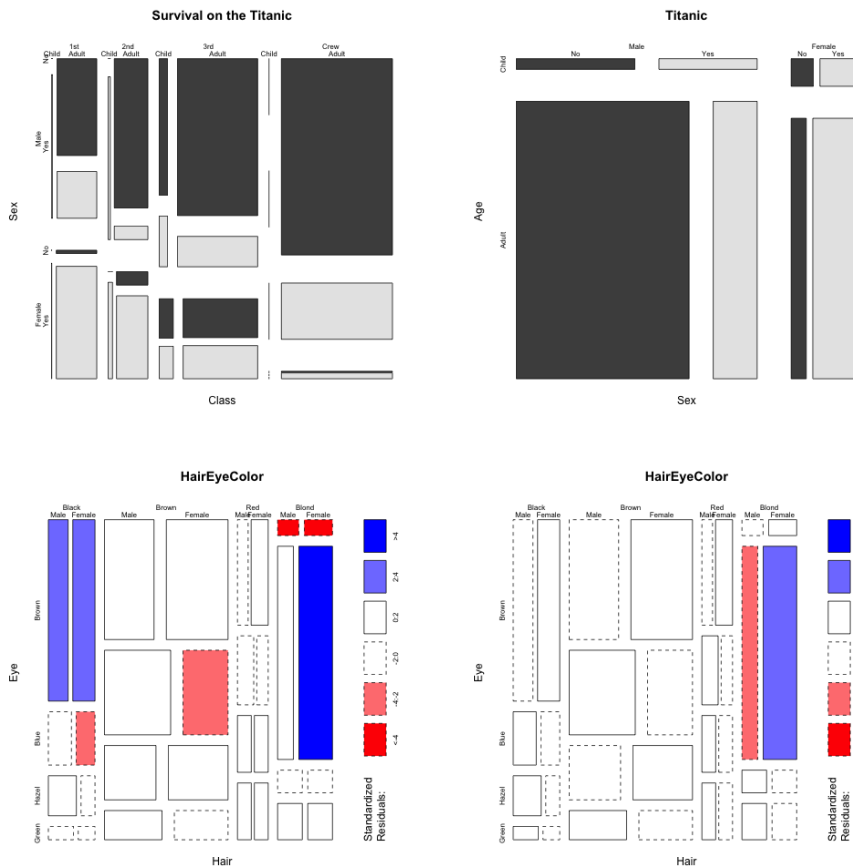


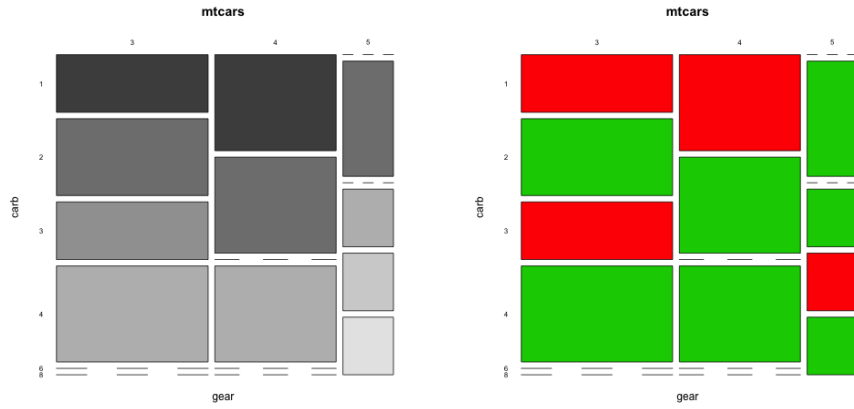
4.15 matplotlib : Plot Columns of Matrices



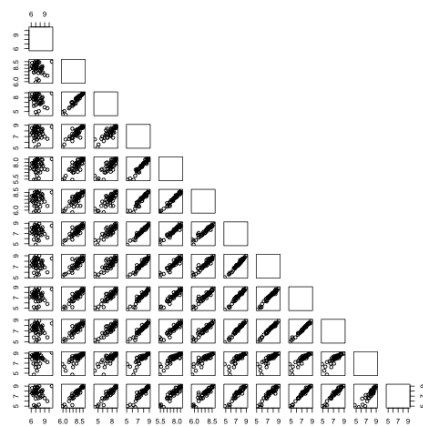
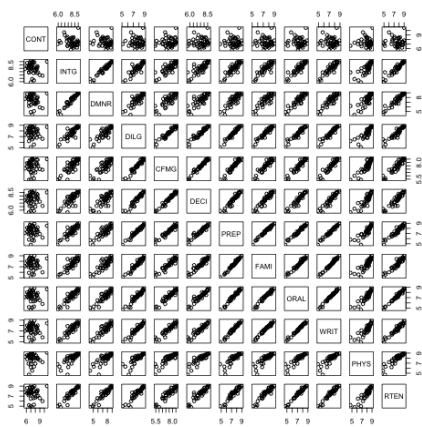
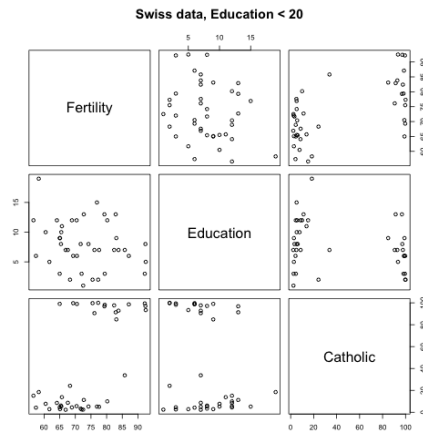
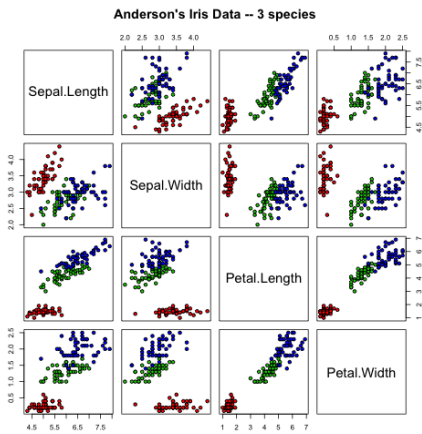


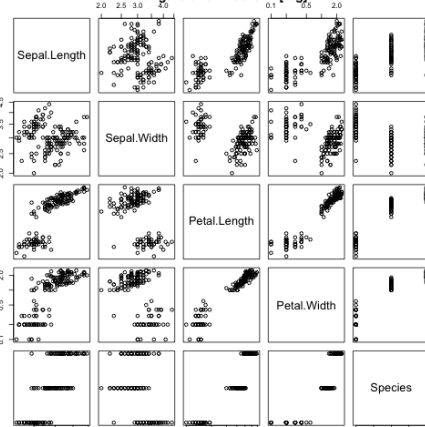
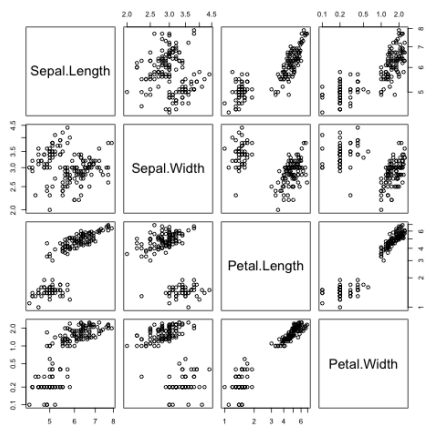
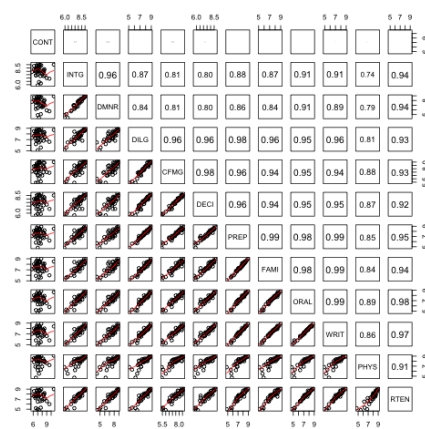
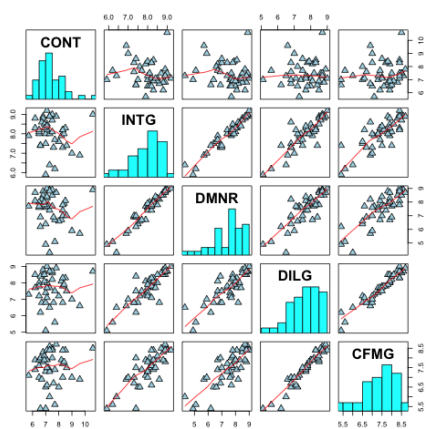
4.16 mosaicplot : Mosaic Plots



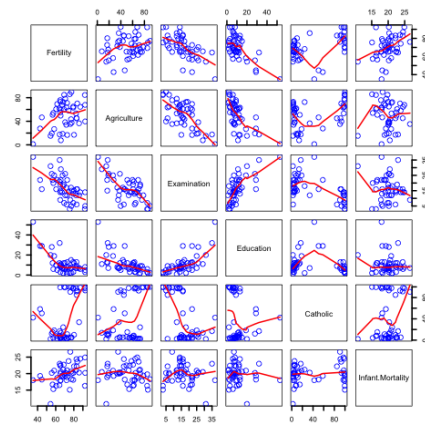
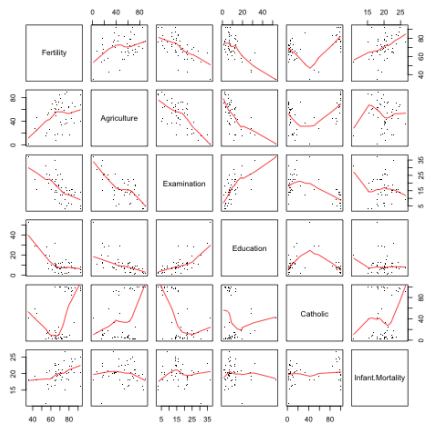


4.17 pairs : Scatterplot Matrices

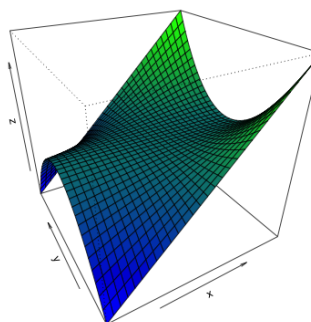
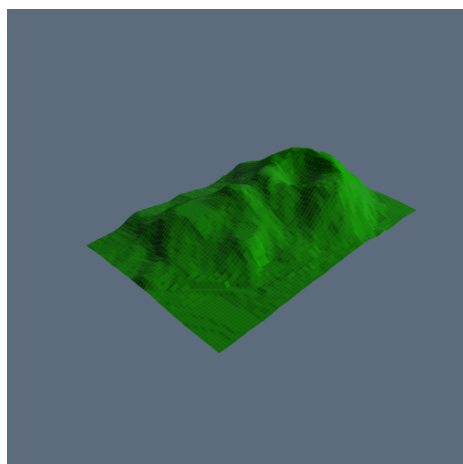
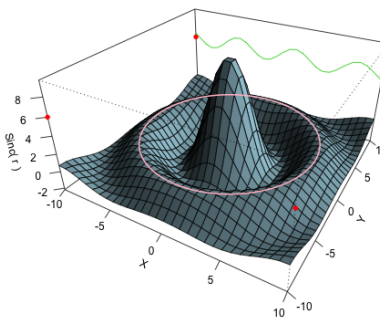
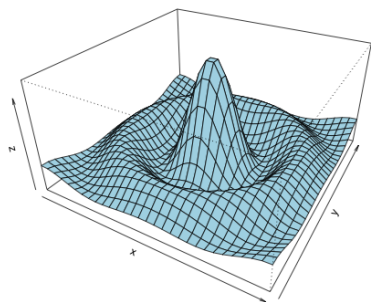




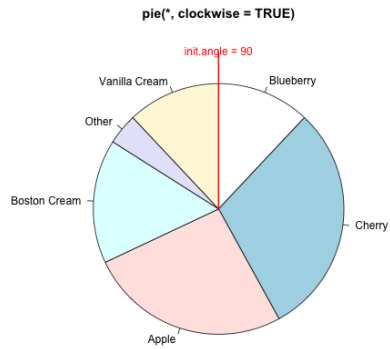
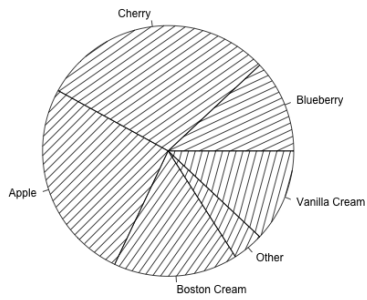
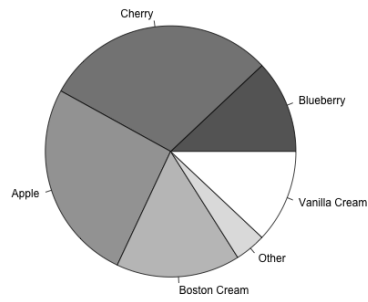
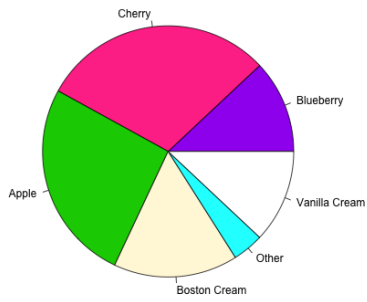
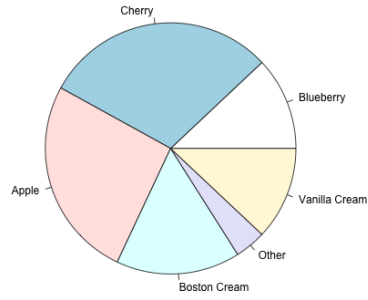
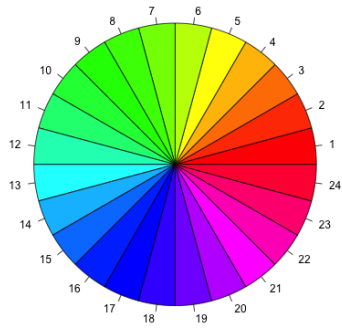
4.18 panel.smooth : Simple Panel Plot



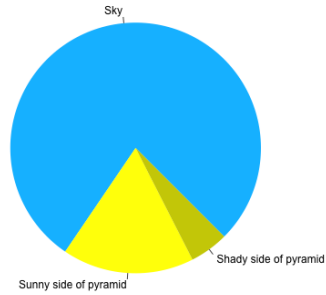
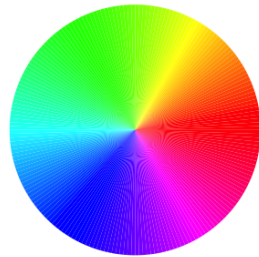
4.19 persp : Perspective Plots



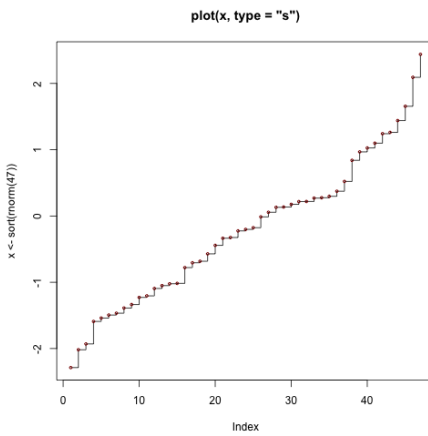
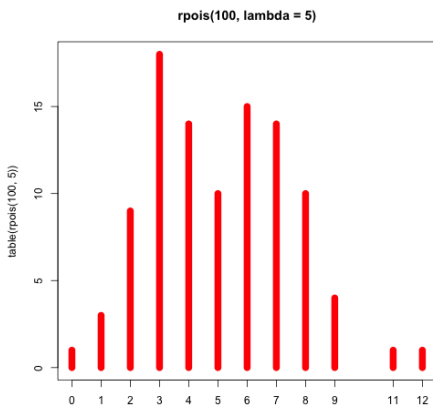
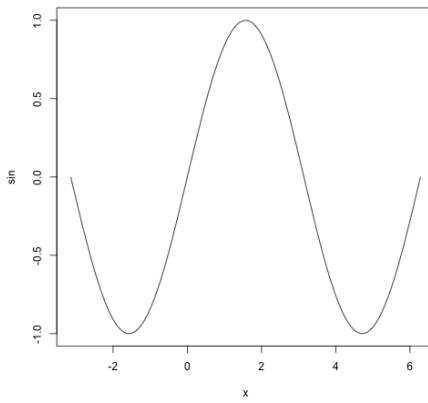
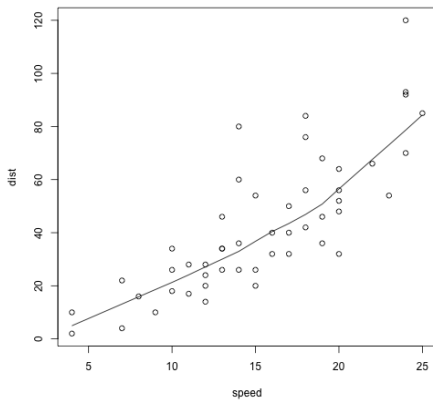
4.20 pie : Pie Charts



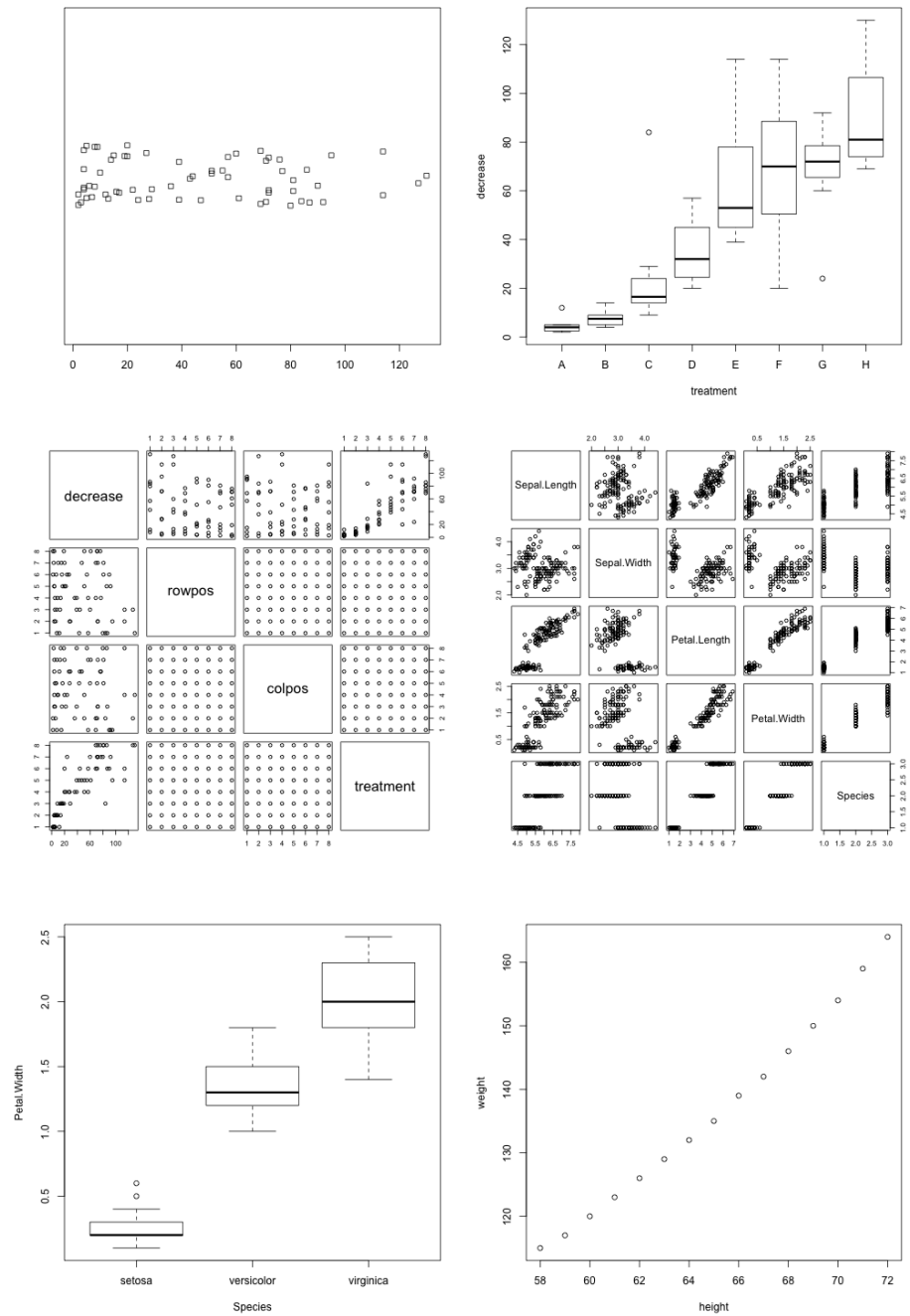
`pie(, labels="", col=rainbow(n), border=NA...`



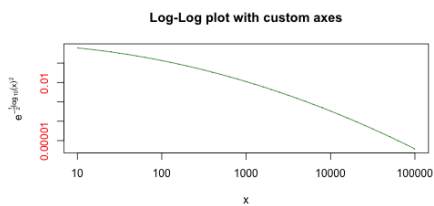
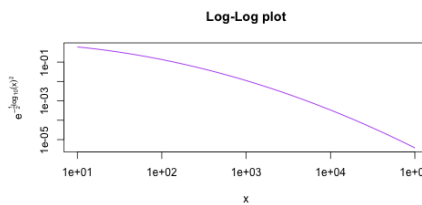
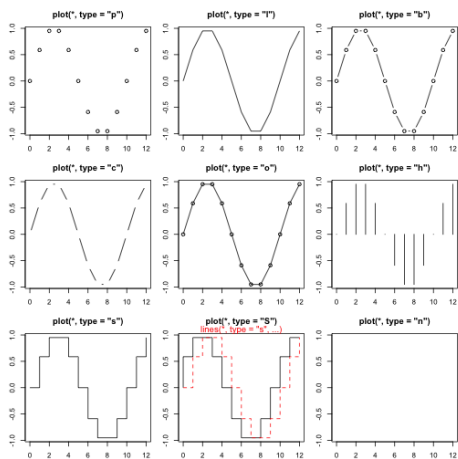
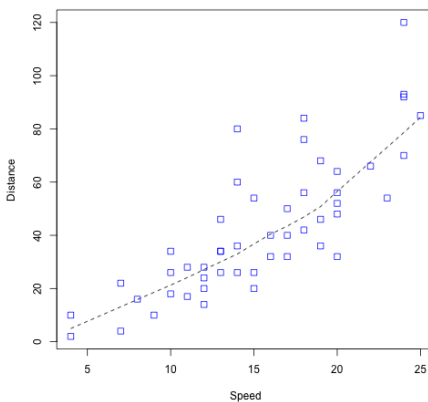
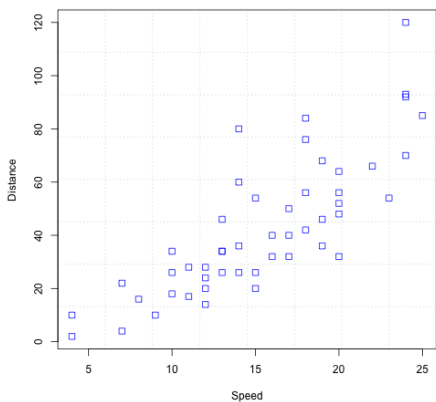
4.21 plot : Generic X-Y Plotting



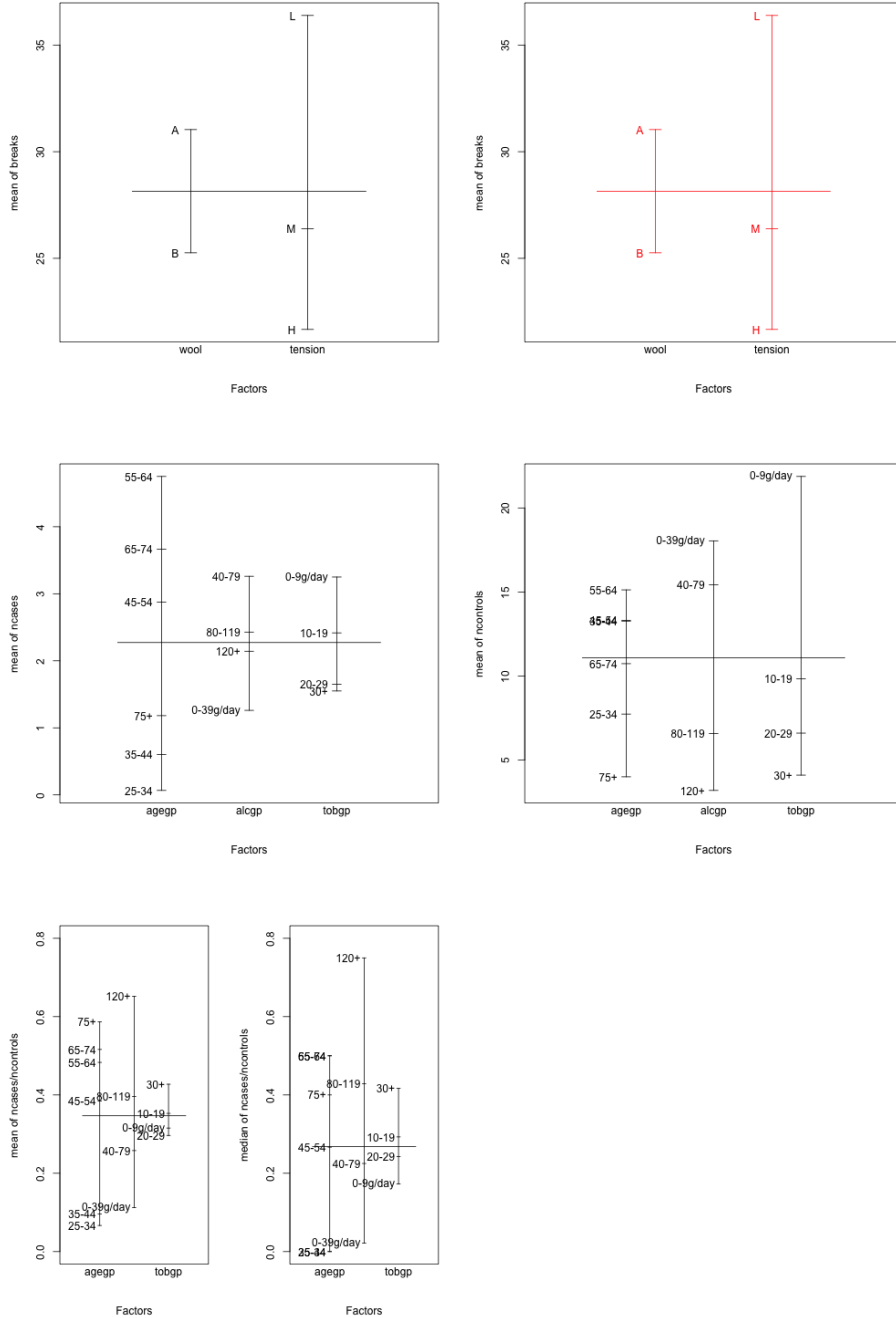
4.22 plot.data.frame : Plot Method for Data Frames



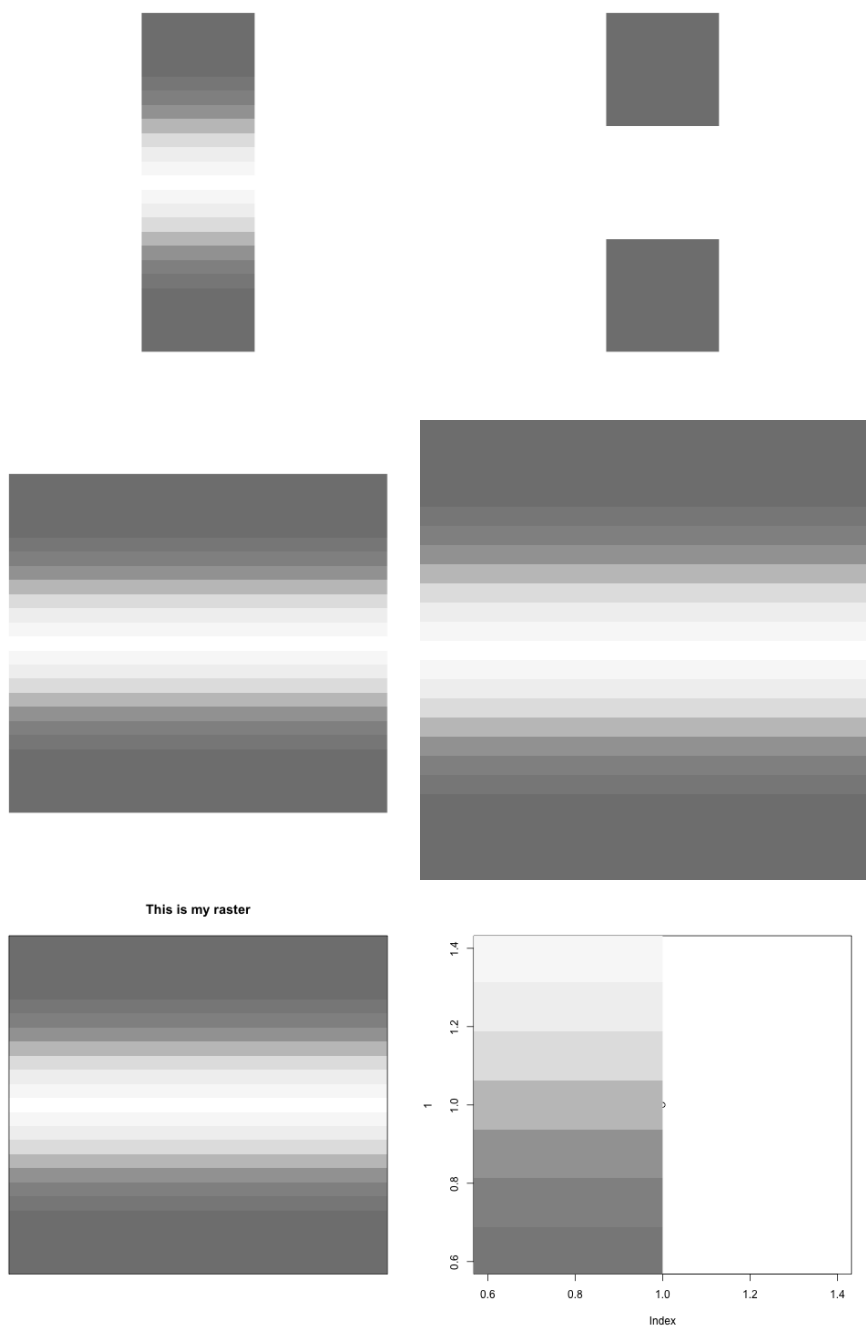
4.23 plot.default : The Default Scatterplot Function



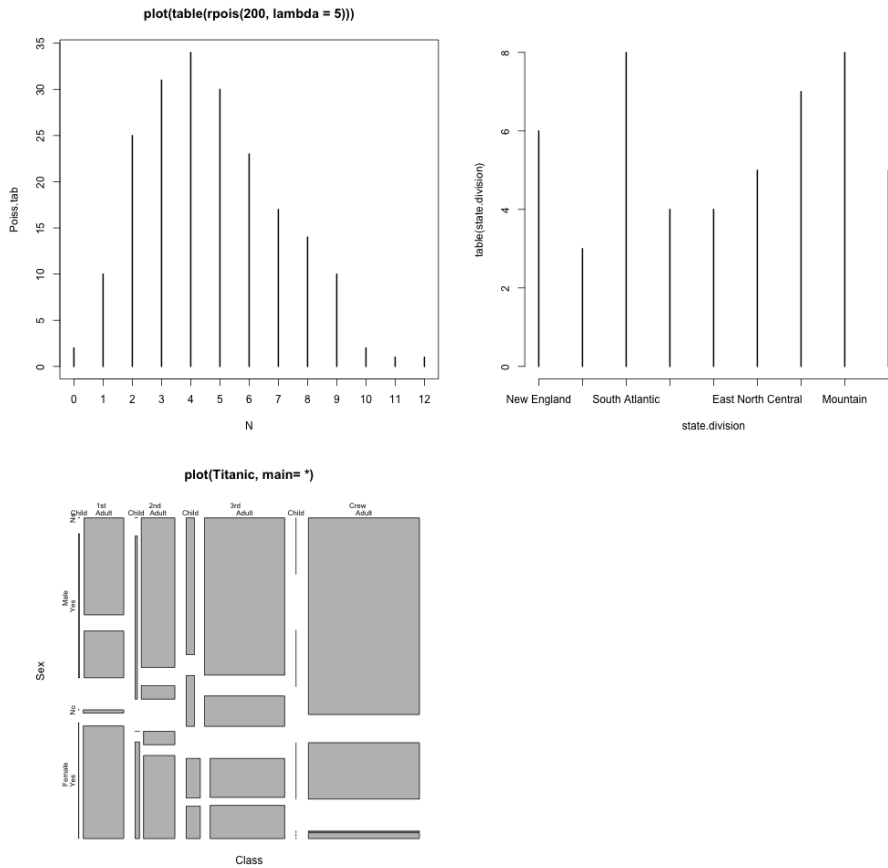
4.24 plot.design : Plot Univariate Effects of a Design or Model



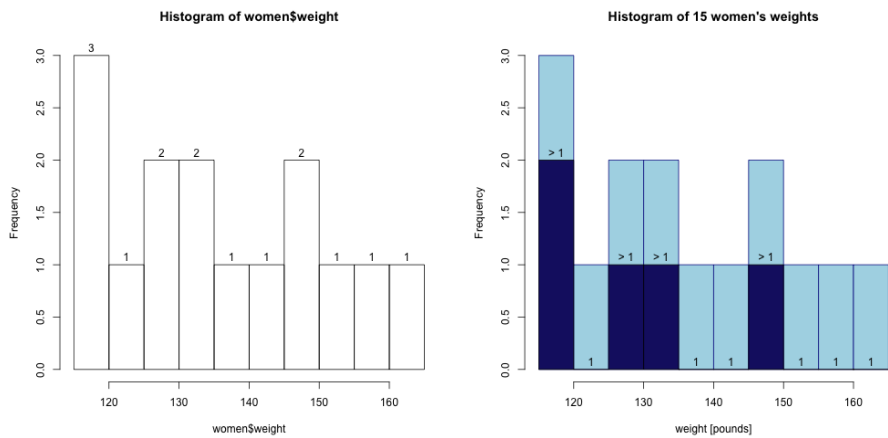
4.27 plot.raster : Plotting Raster Images



4.28 plot.table : Plot Methods for 'table' Objects

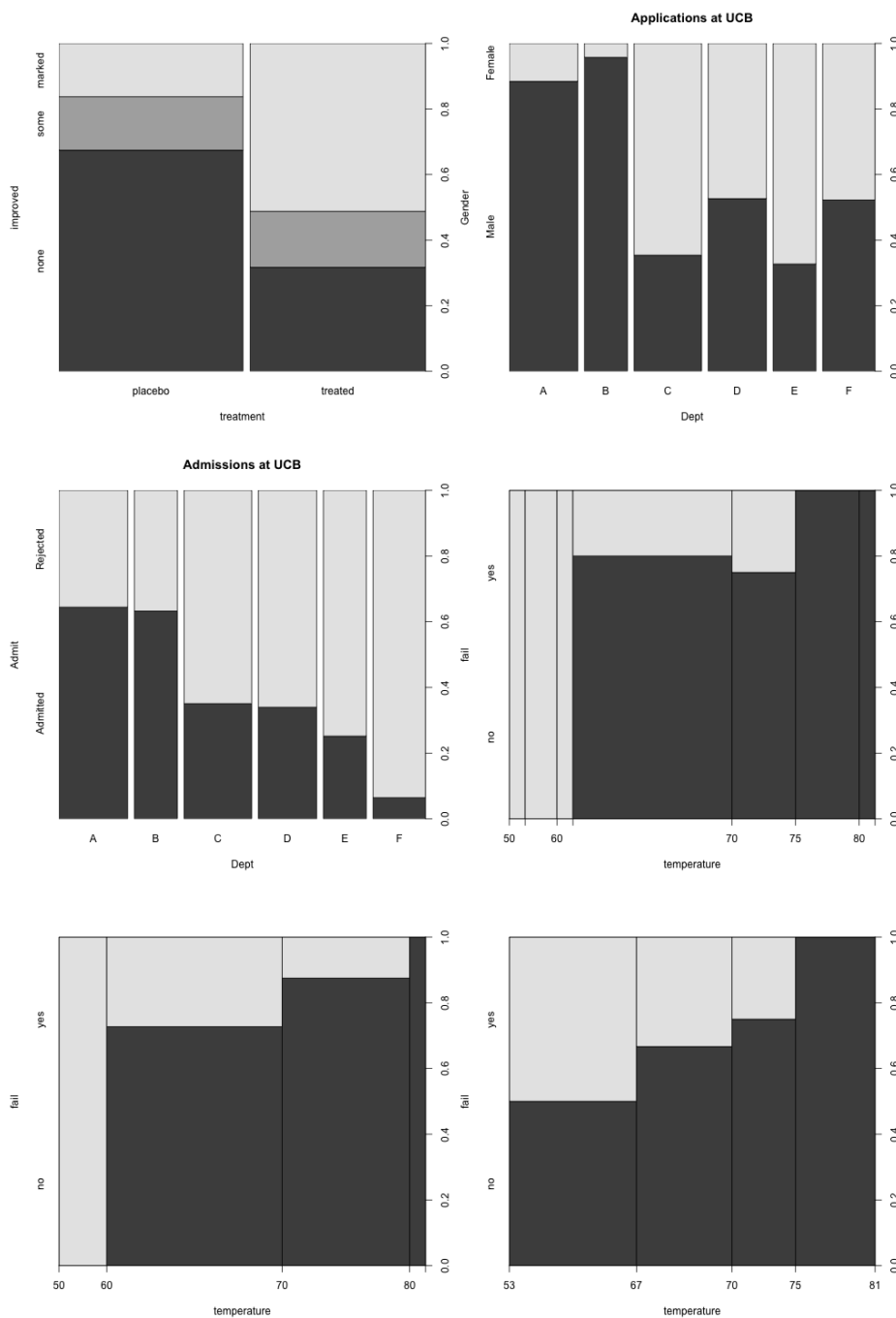


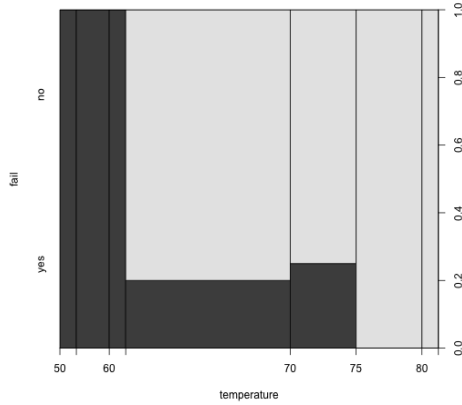
4.29 plot.histogram : Plot Histograms



4.30 smoothScatter : Scatterplots with Smoothed Densities Color Representation

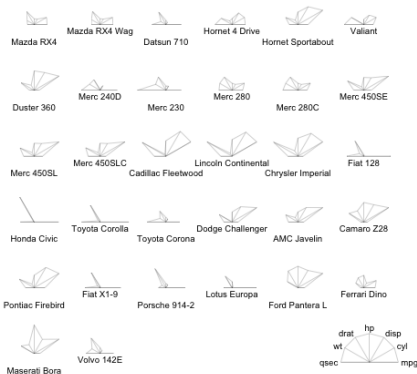
4.31 spineplot : Spine Plots and Spinograms



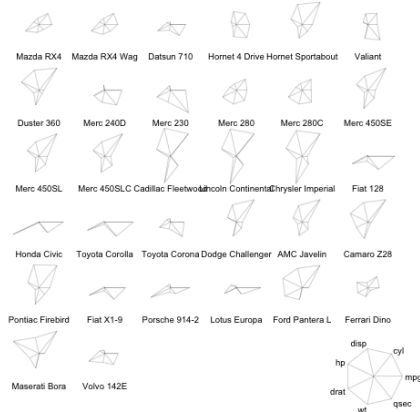


4.32 stars : Star (Spider/Radar) Plots and Segment Diagrams

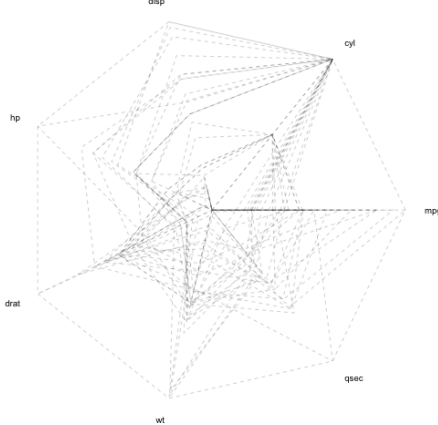
Motor Trend Cars : stars(*, full = F)



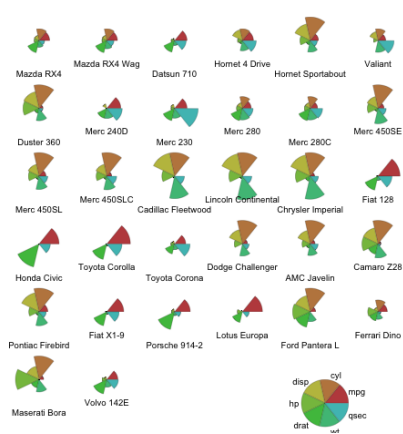
Motor Trend Cars : full stars()



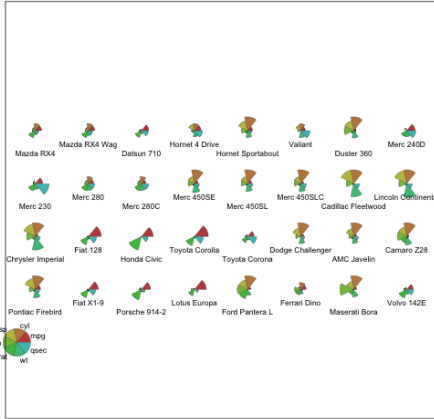
Motor Trend Cars



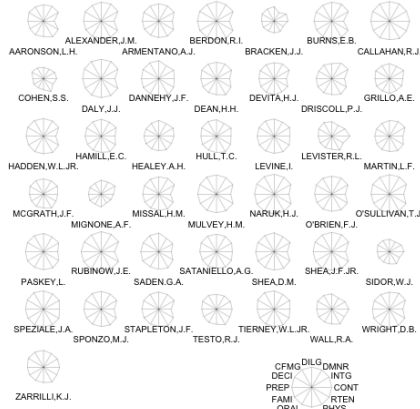
Motor Trend Cars



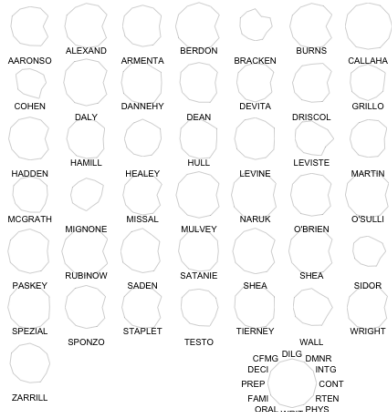
Motor Trend Cars



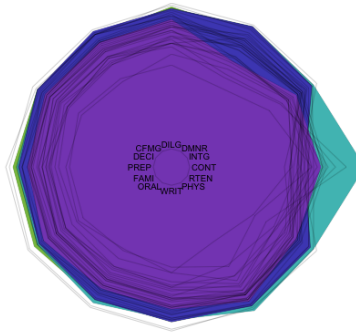
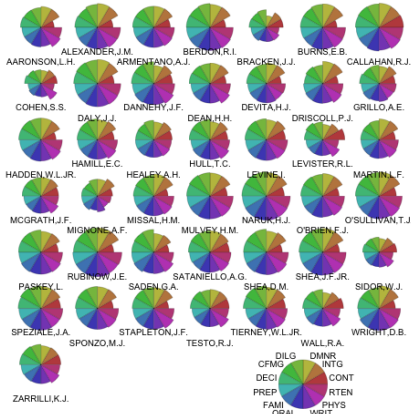
Judge not ...



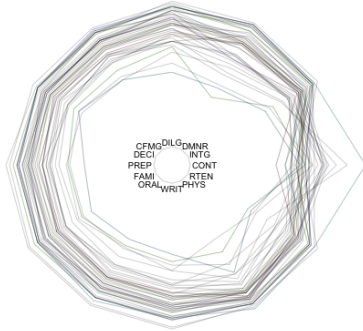
Judge not ...



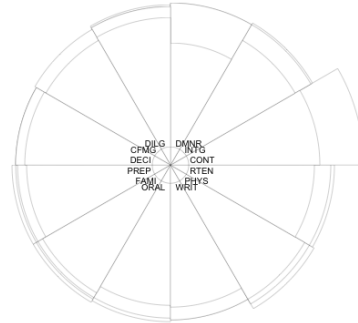
US Judges rated



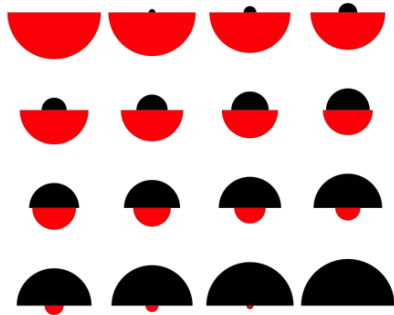
US Judges rated



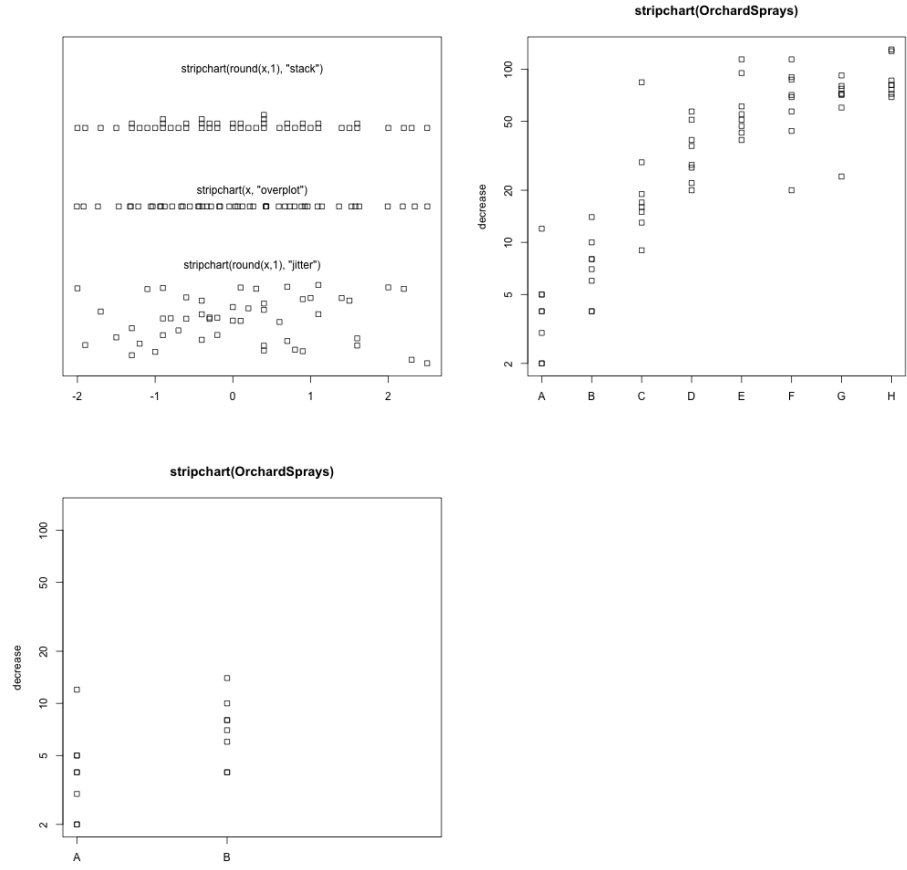
US Judges 1-10



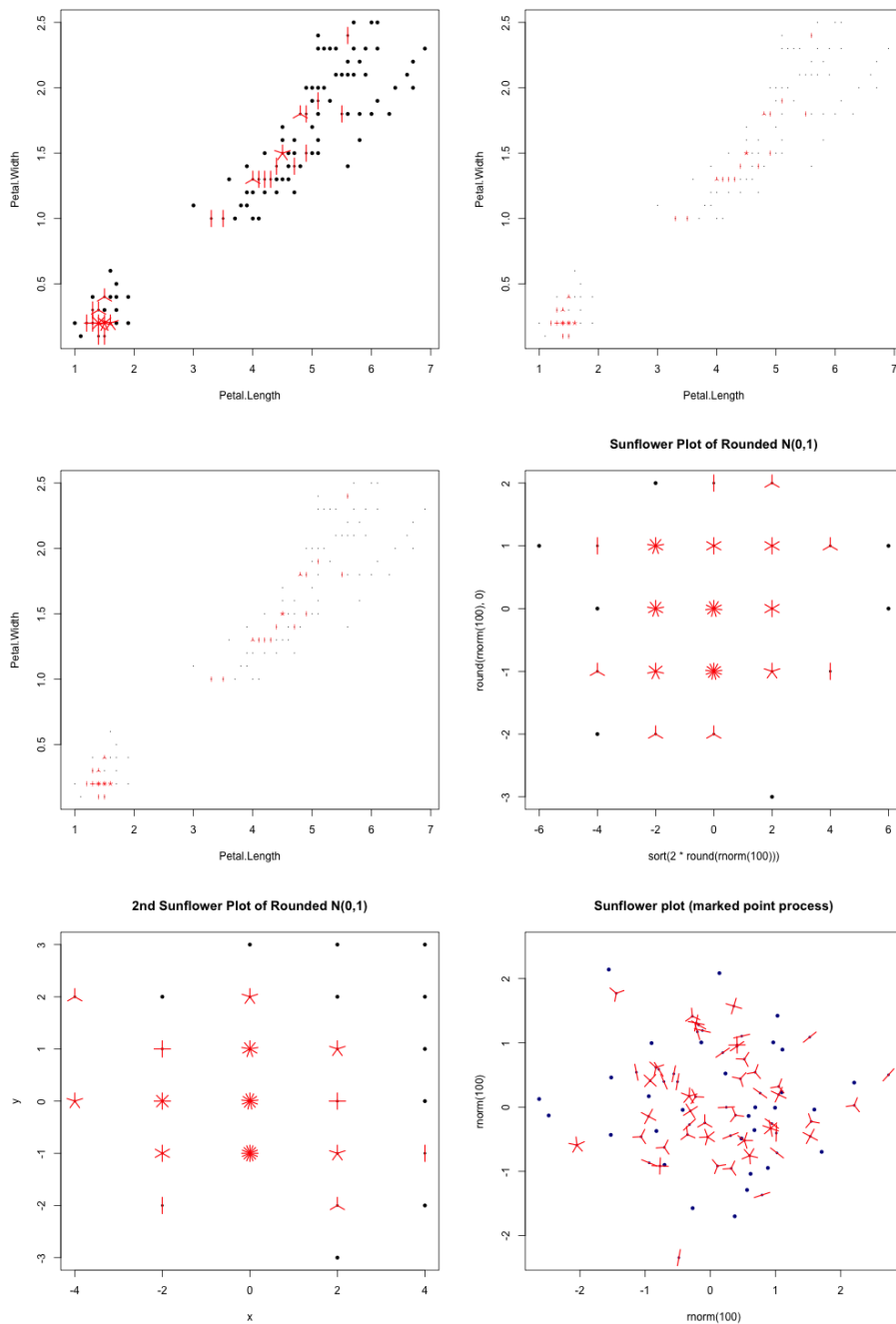
A Joke -- do *not* use symbols on 2D data!



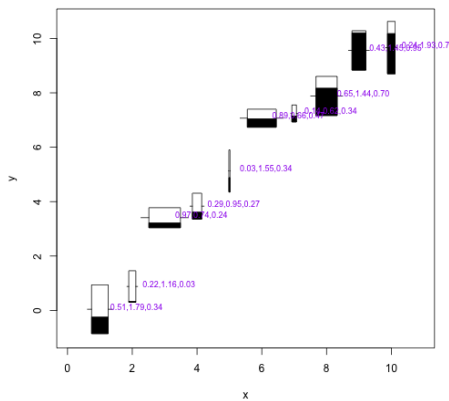
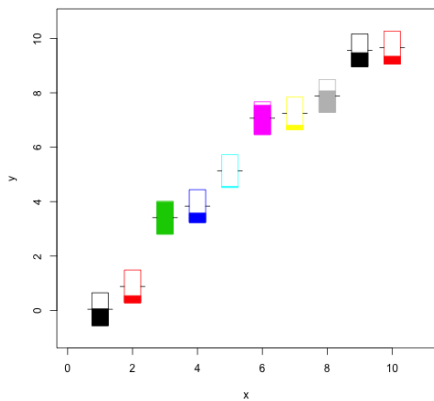
4.33 stripchart : 1-D Scatter Plots



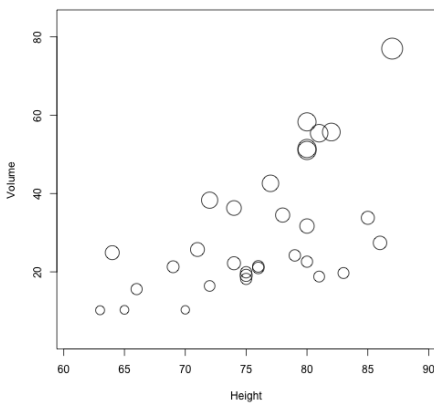
4.34 sunflowerplot : Produce a Sunflower Scatter Plot



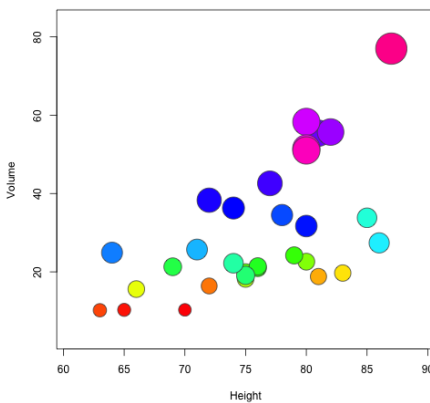
4.35 symbols : Draw Symbols (Circles, Squares, Stars, Thermometers, Boxplots)



Trees' Girth

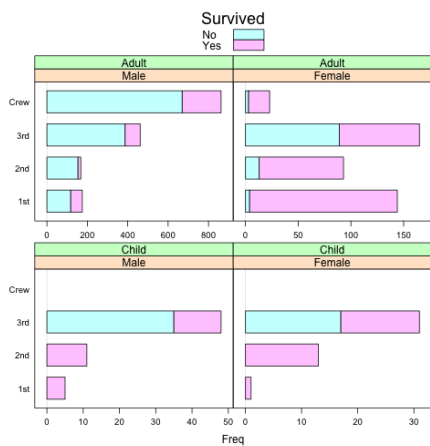


symbols(*, circles = Girth/16, bg = 1:N)

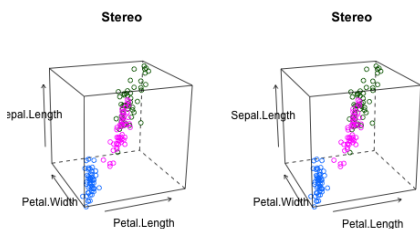
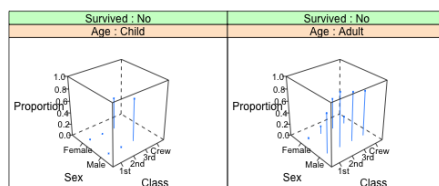
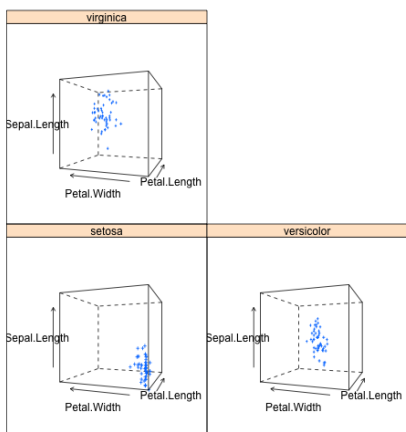
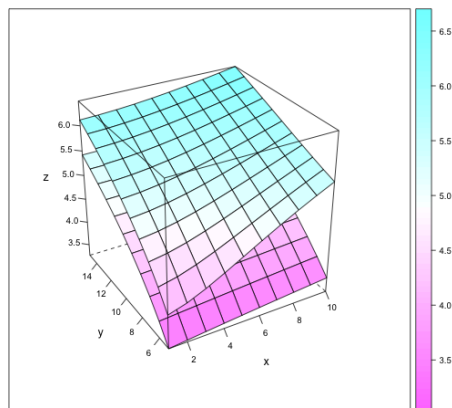
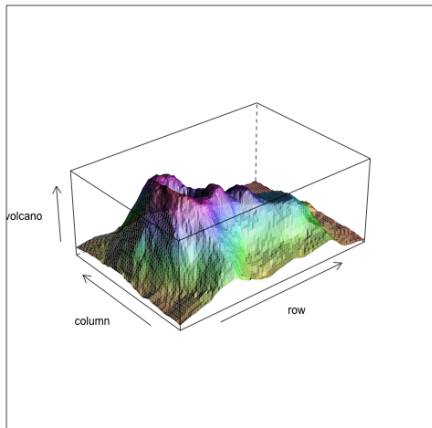


5 lattice 0.20-34

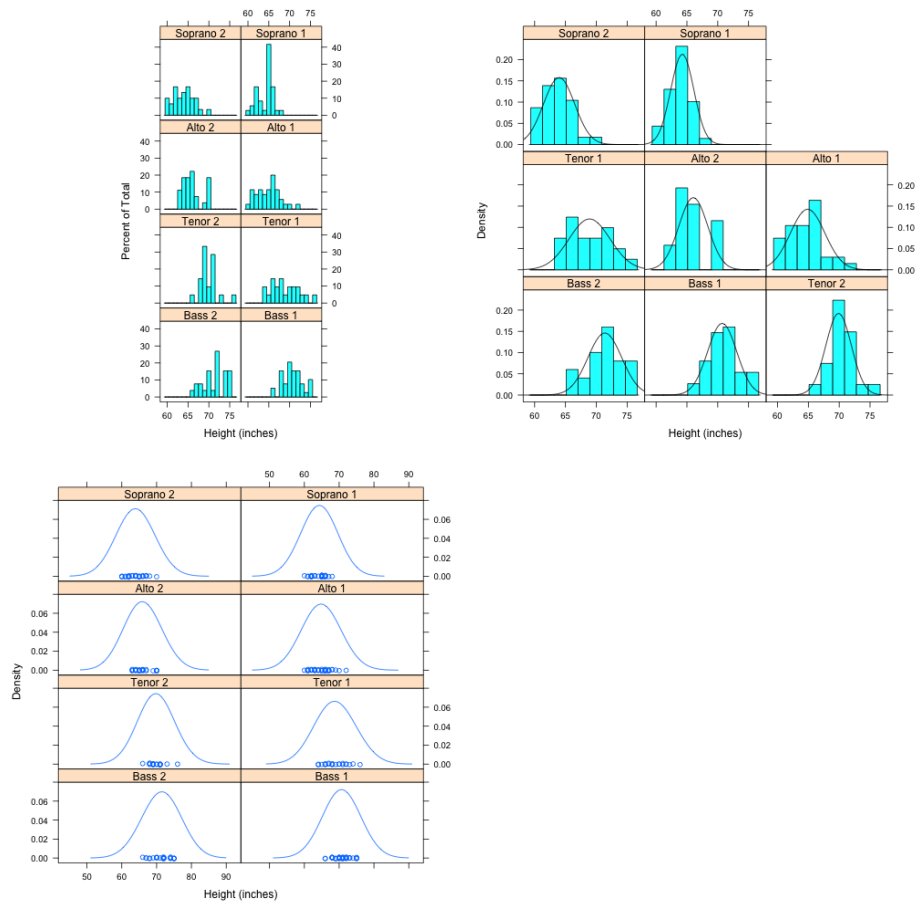
5.1 barchart.table : table methods for barchart and dot-plot



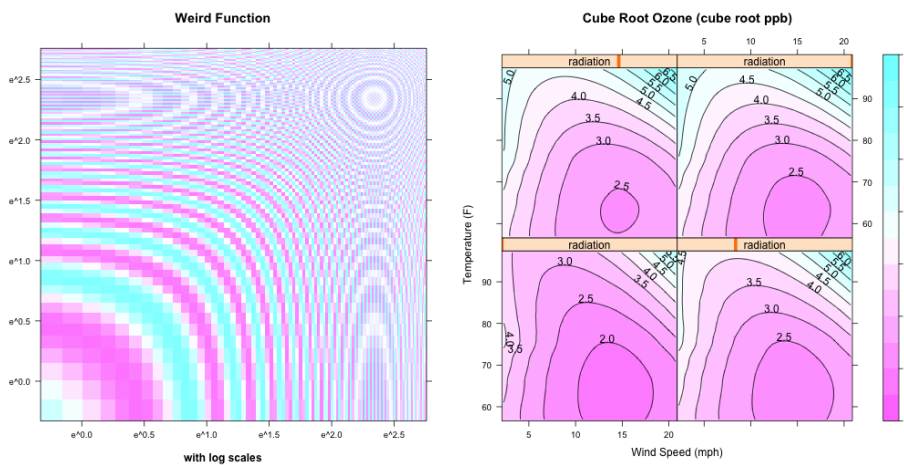
5.2 cloud : 3d Scatter Plot and Wireframe Surface Plot



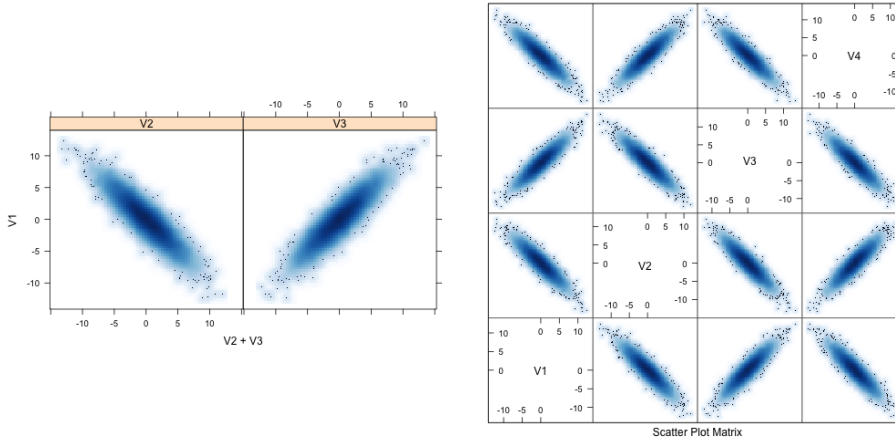
5.3 histogram : Histograms and Kernel Density Plots



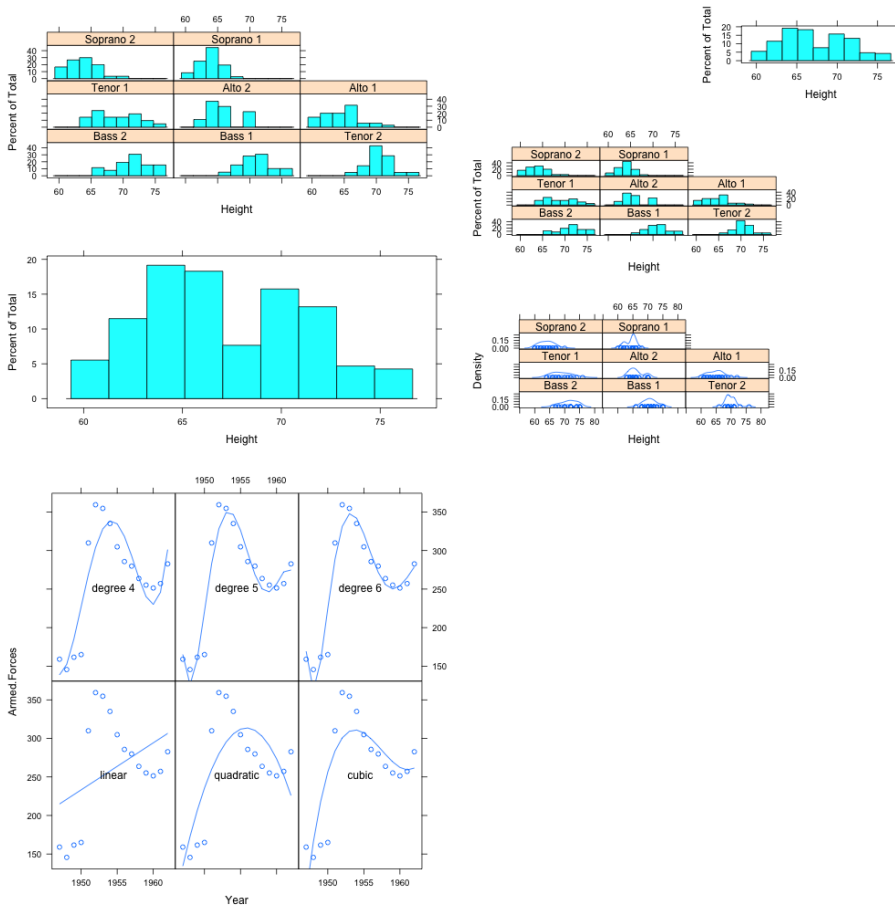
5.4 levelplot : Level plots and contour plots



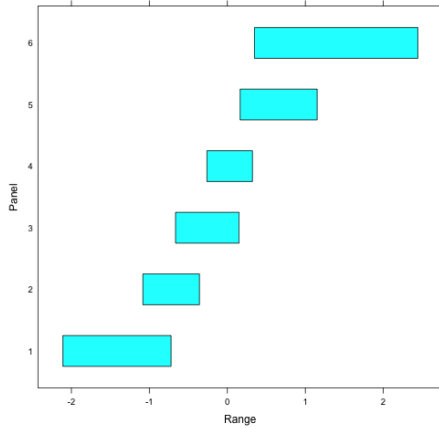
5.5 panel.smoothScatter : Lattice panel function analogous to smoothScatter



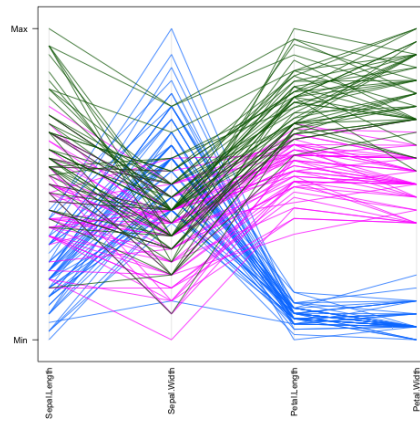
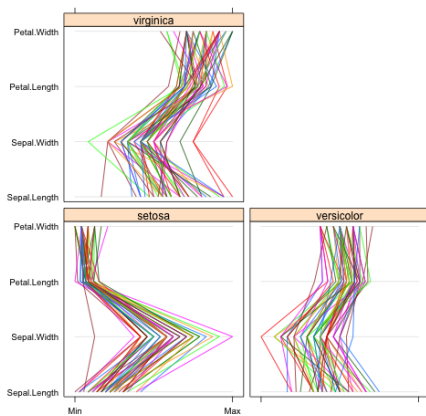
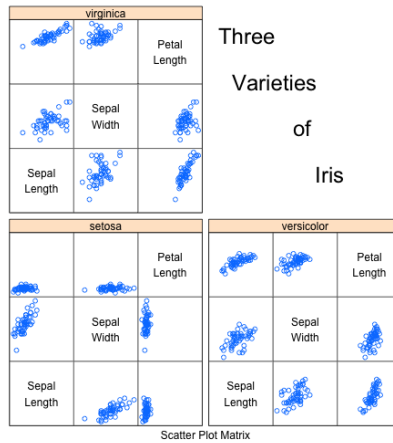
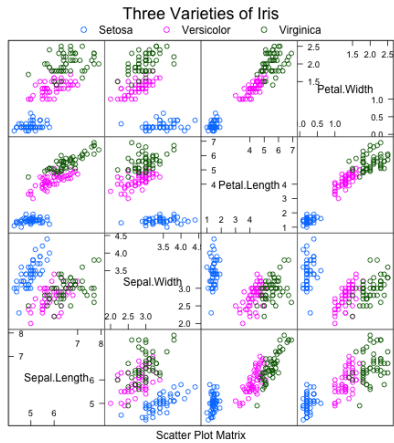
5.6 print.trellis : Plot and Summarize Trellis Objects



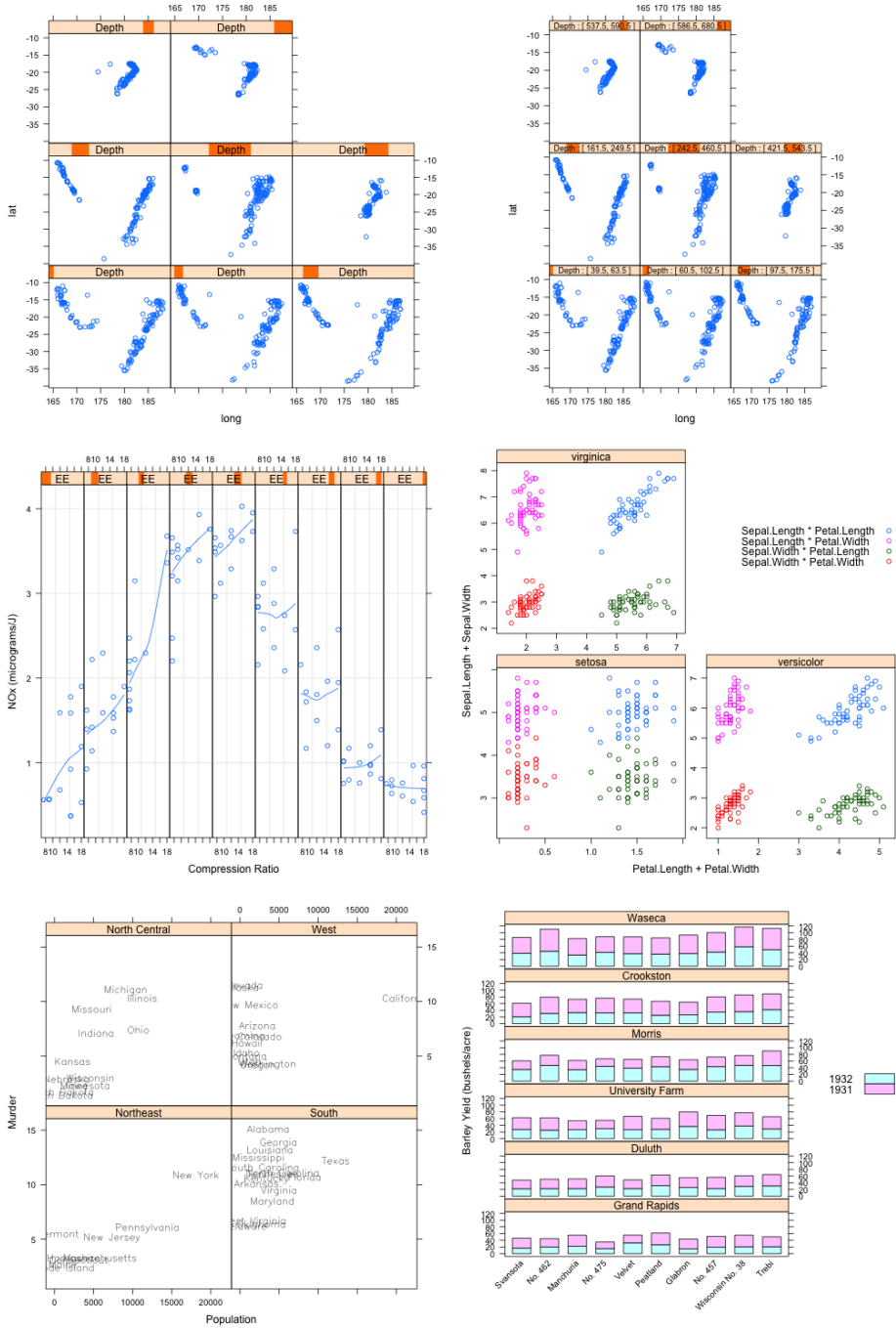
5.7 equal.count : shingles

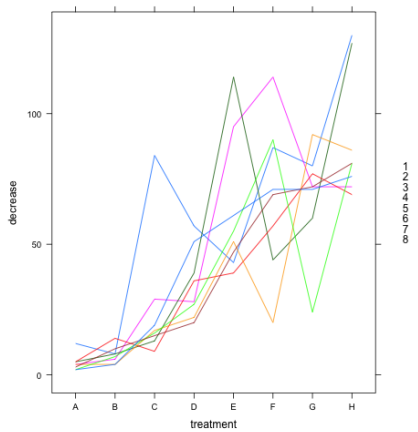
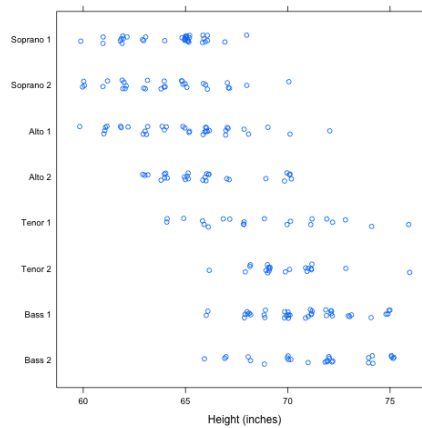
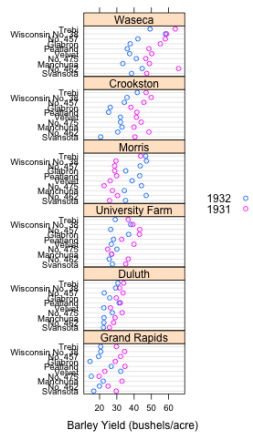
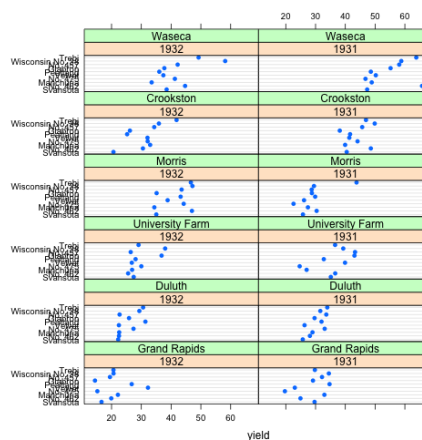
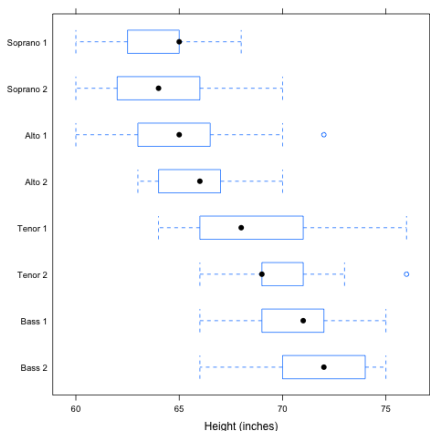


5.8 splom : Scatter Plot Matrices

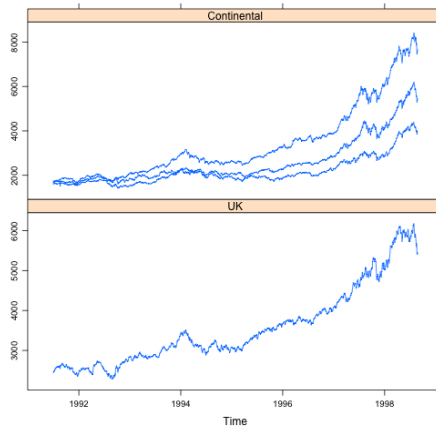
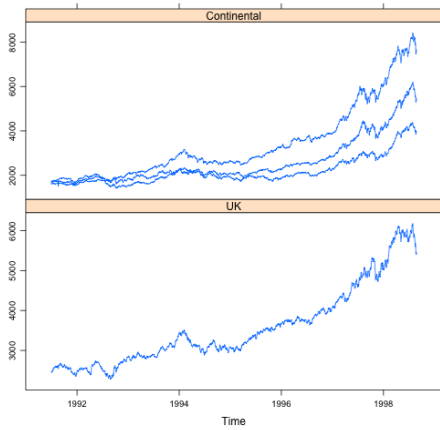
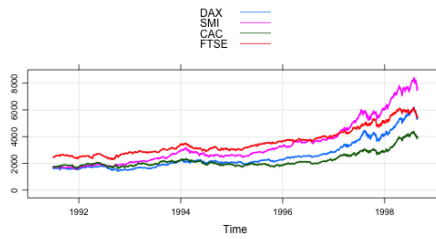
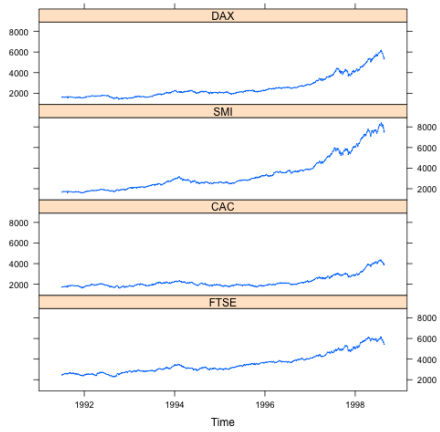
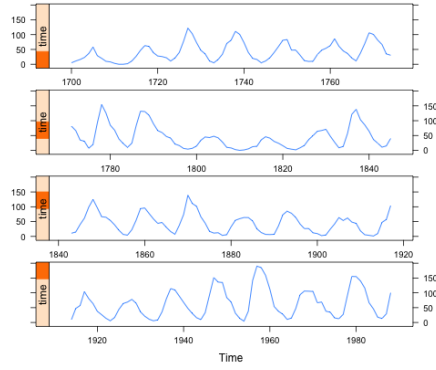
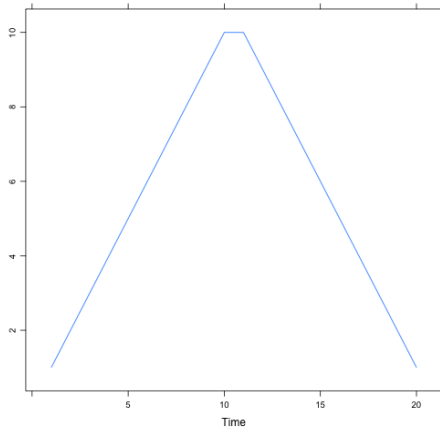


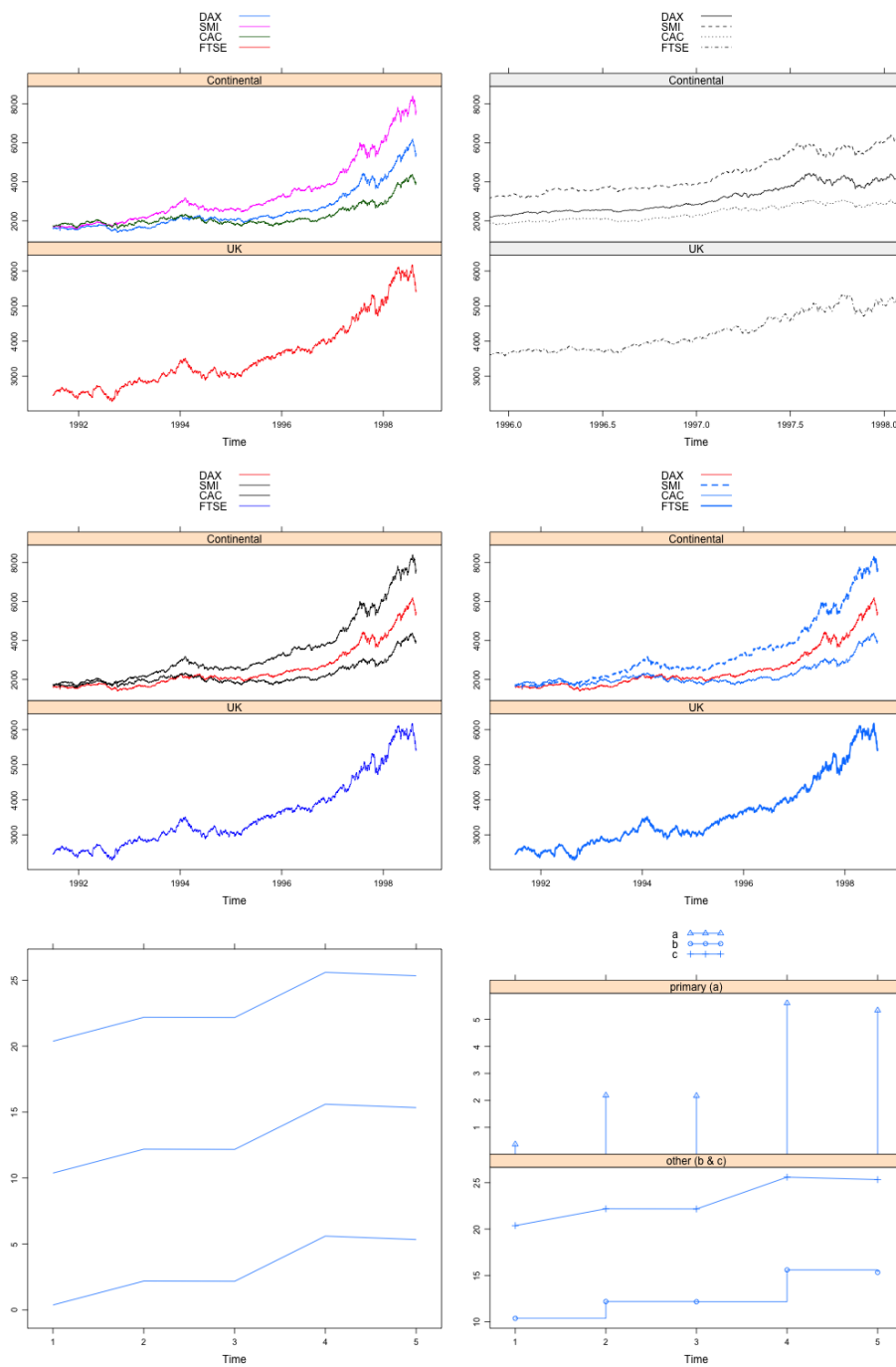
5.9 xyplot : Common Bivariate Trellis Plots





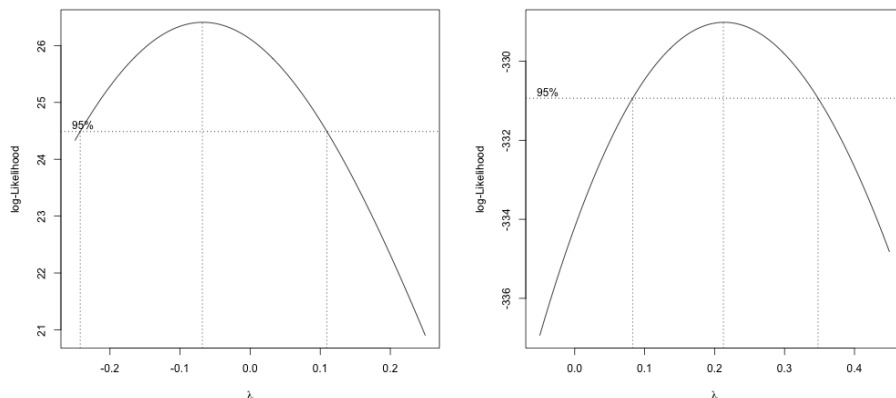
5.10 xyplot.ts : Time series plotting methods





6 MASS 7.3-45

6.1 boxcox : Box-Cox Transformations for Linear Models

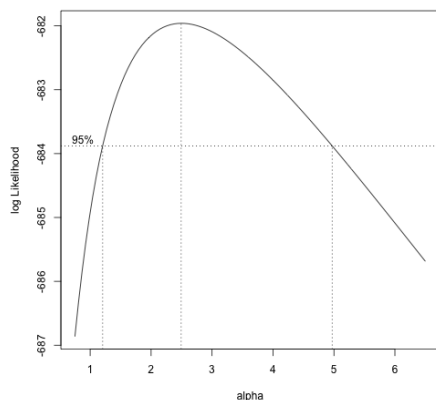


6.2 eqsplot : Plots with Geometrically Equal Scales

6.3 hist.scott : Plot a Histogram with Automatic Bin Width Selection

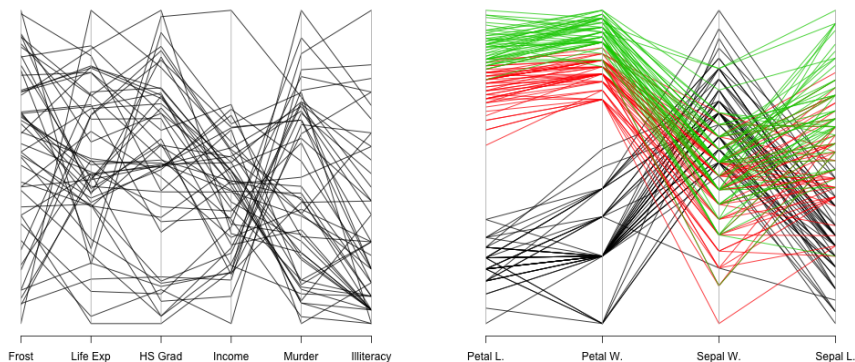
6.4 ldahist : Histograms or Density Plots of Multiple Groups

6.5 logtrans : Estimate log Transformation Parameter



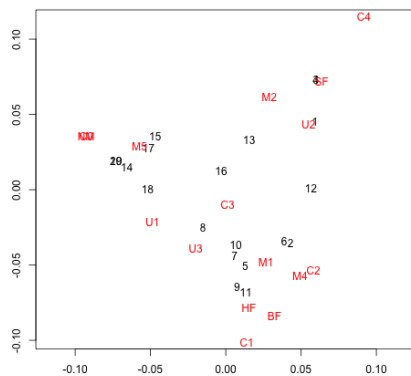
6.6 pairs.lda : Produce Pairwise Scatterplots from an 'lda' Fit

6.7 parcoord : Parallel Coordinates Plot

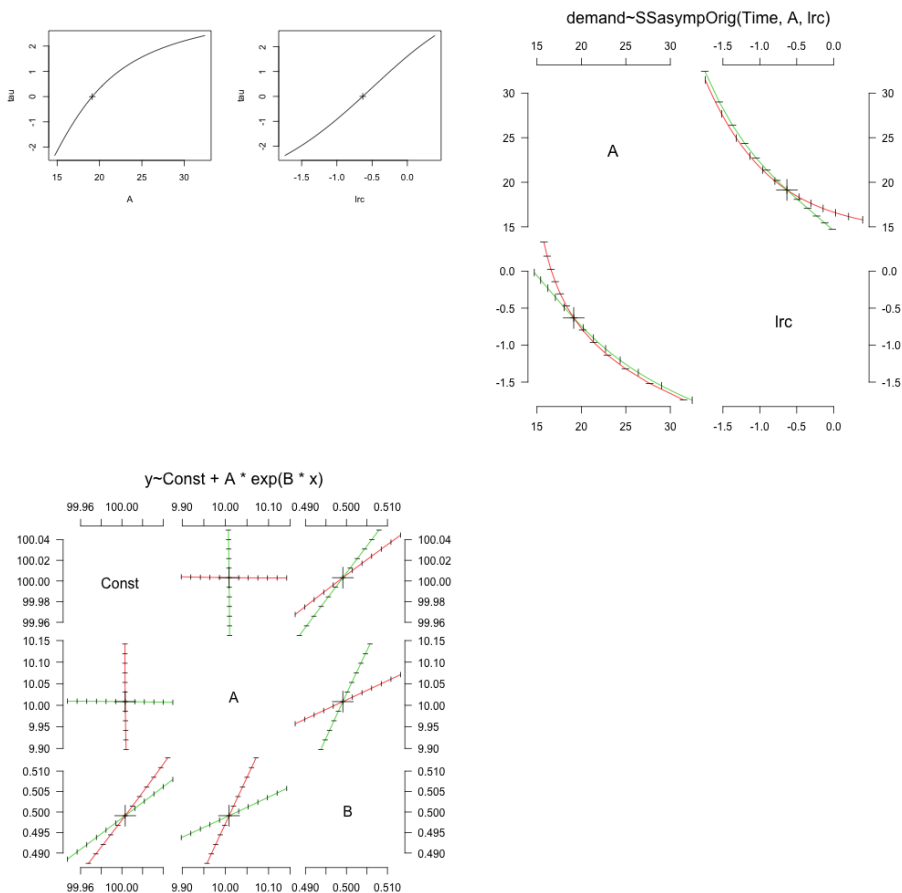


6.8 plot.lda : Plot Method for Class 'lda'

6.9 plot.mca : Plot Method for Objects of Class 'mca'



6.10 plot.profile : Plotting Functions for 'profile' Objects



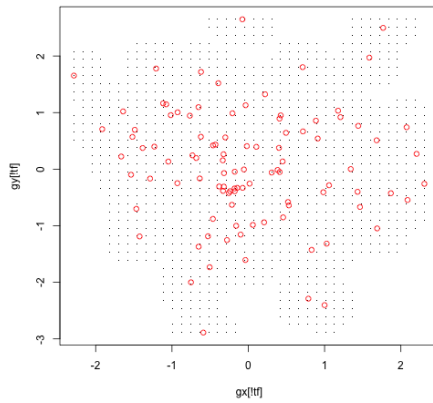
6.11 truehist : Plot a Histogram

7 Matrix 1.2-7.1

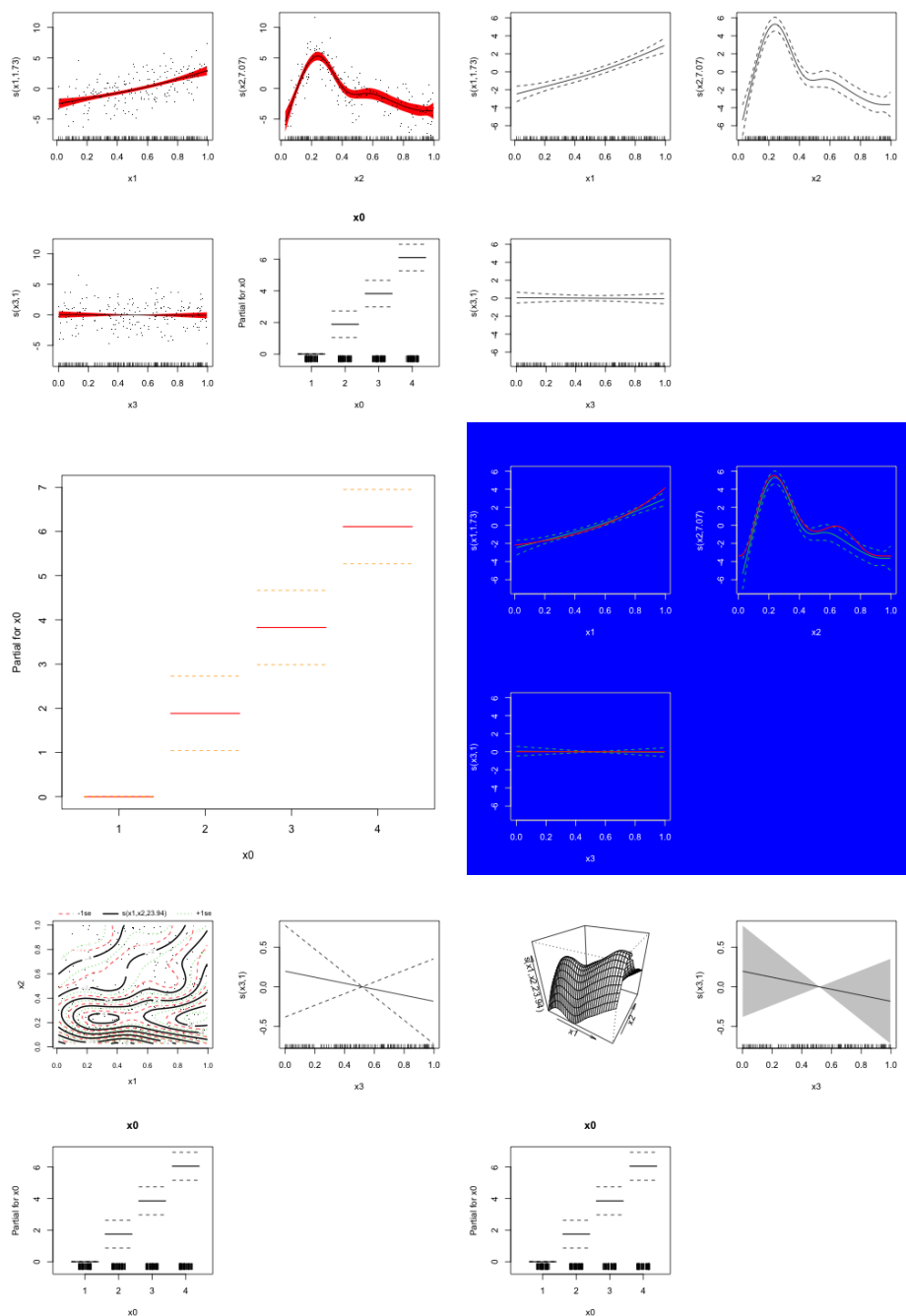
7.1 image-methods : Methods for image() in Package 'Matrix'

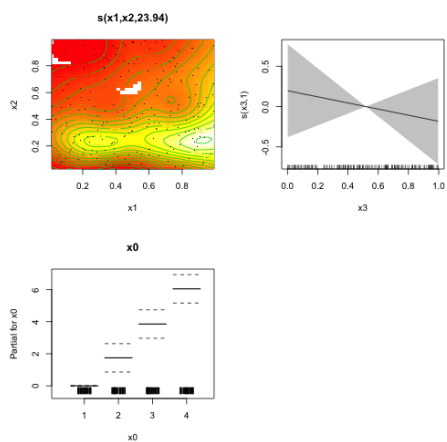
8 mgcv 1.8-15

8.1 `exclude.too.far` : Exclude prediction grid points too far from data

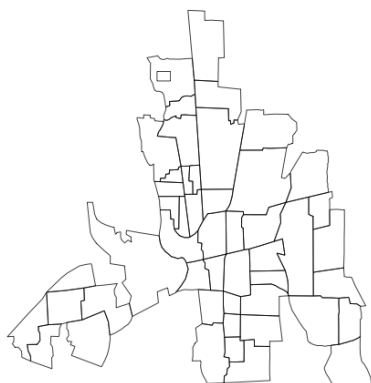


8.2 plot.gam : Default GAM plotting

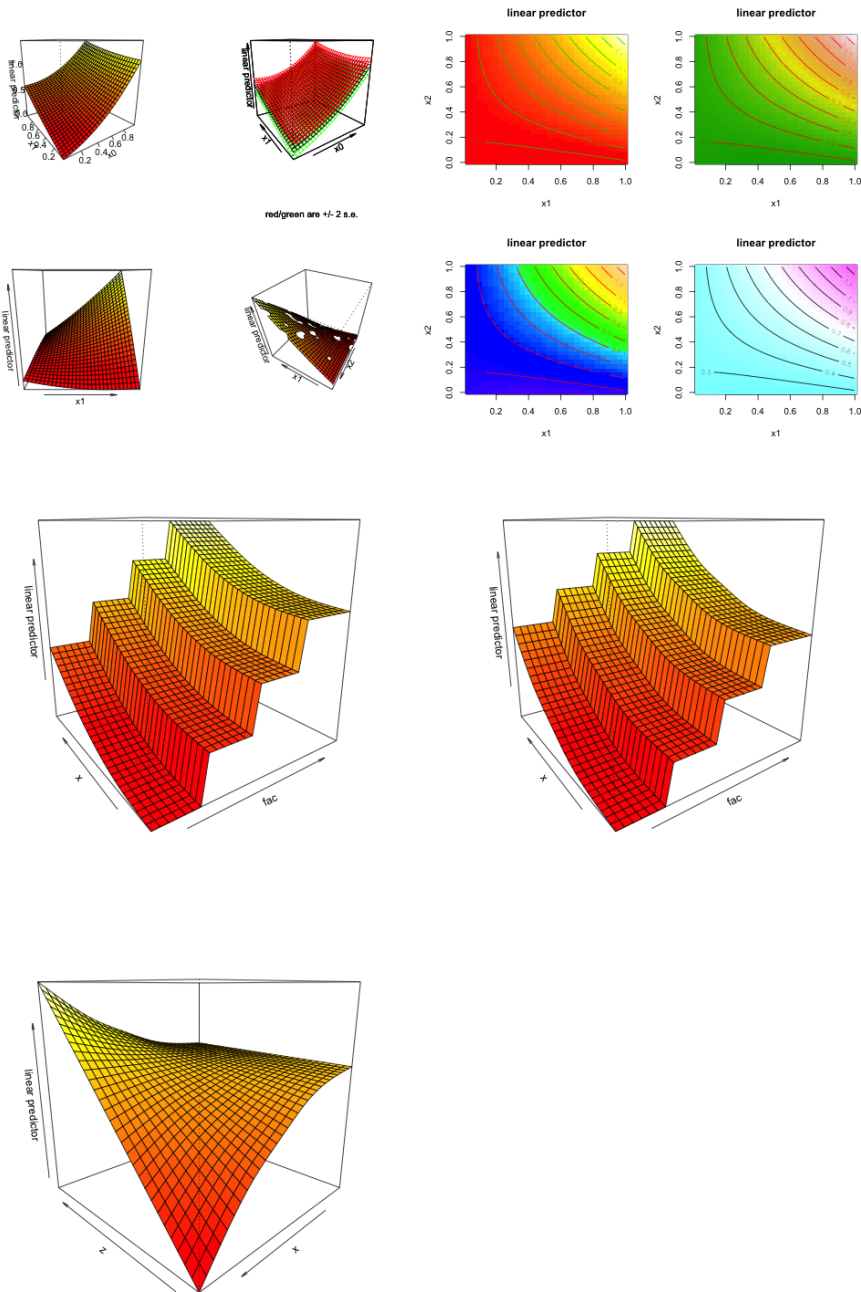




8.3 polys.plot : Plot geographic regions defined as polygons

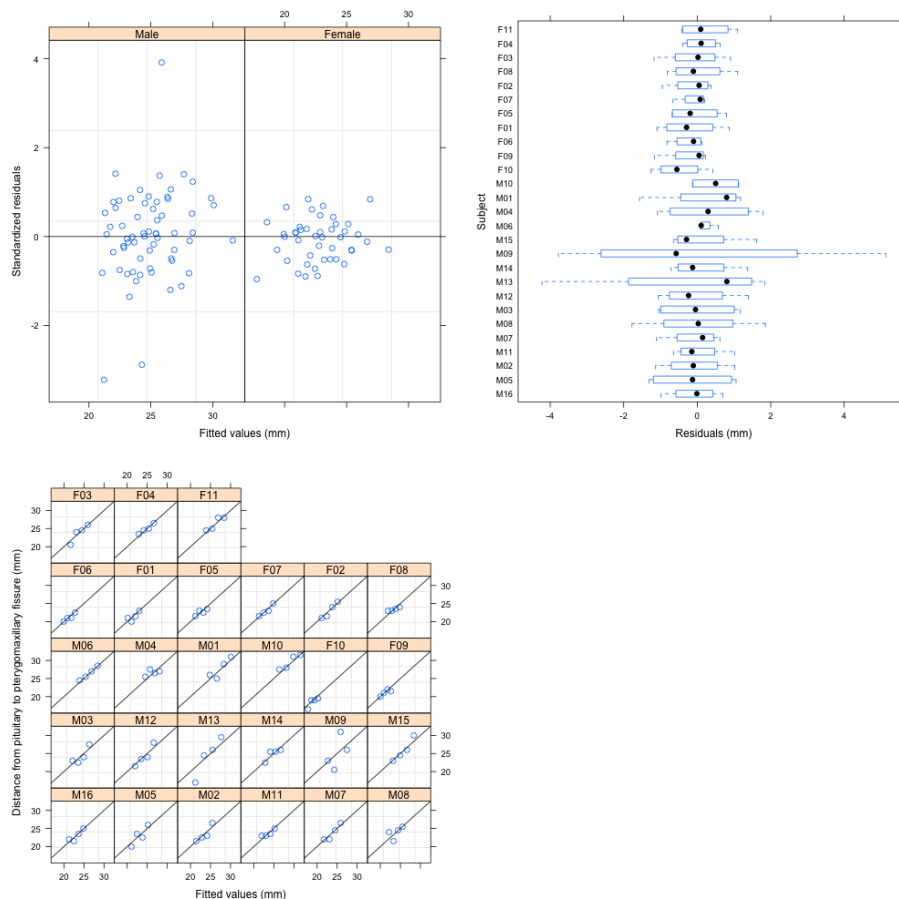


8.4 vis.gam : Visualization of GAM objects



9 nlme 3.1-131

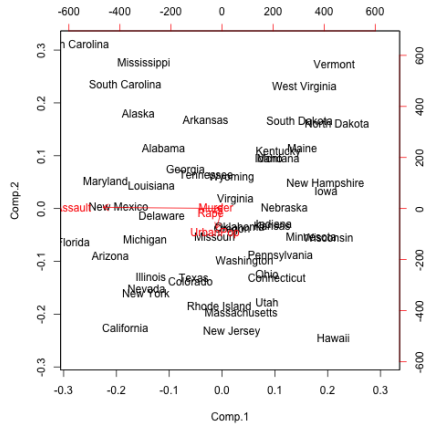
9.1 plot.lme : Plot an lme or nls object



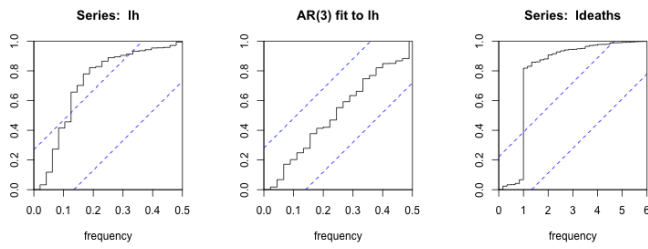
10 stats 3.3.1

10.1 biplot : Biplot of Multivariate Data

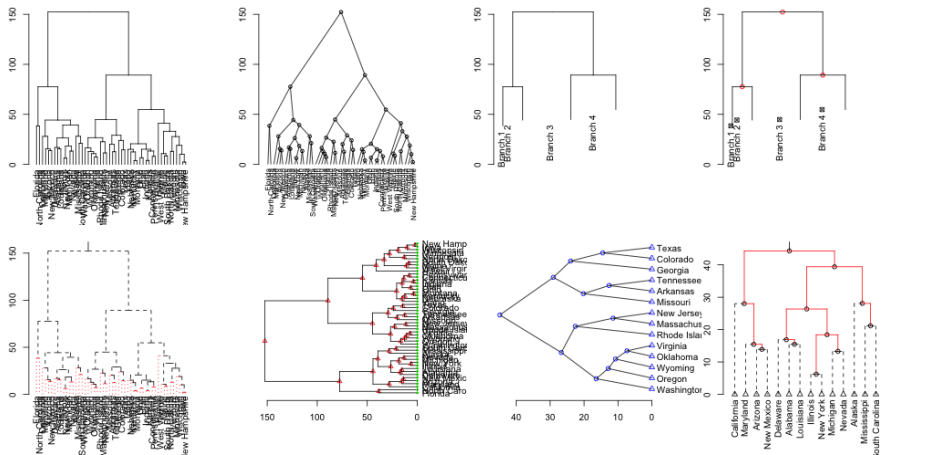
10.2 biplot.princomp : Biplot for Principal Components



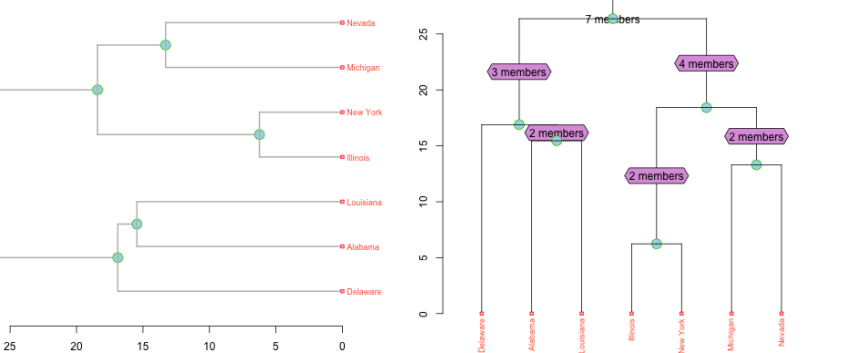
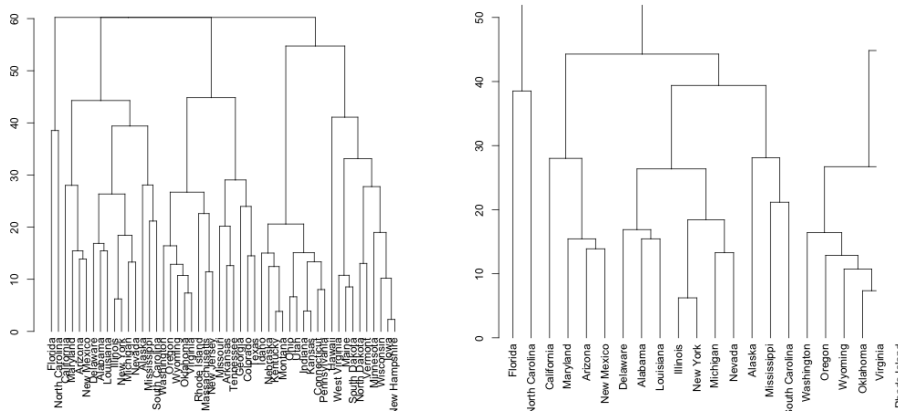
10.3 cpgram : Plot Cumulative Periodogram

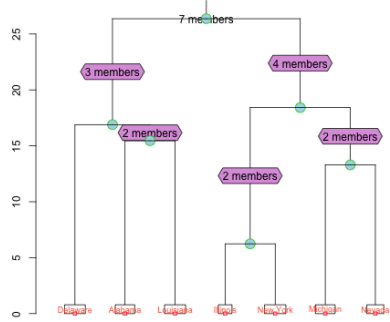


10.4 dendrogram : General Tree Structures

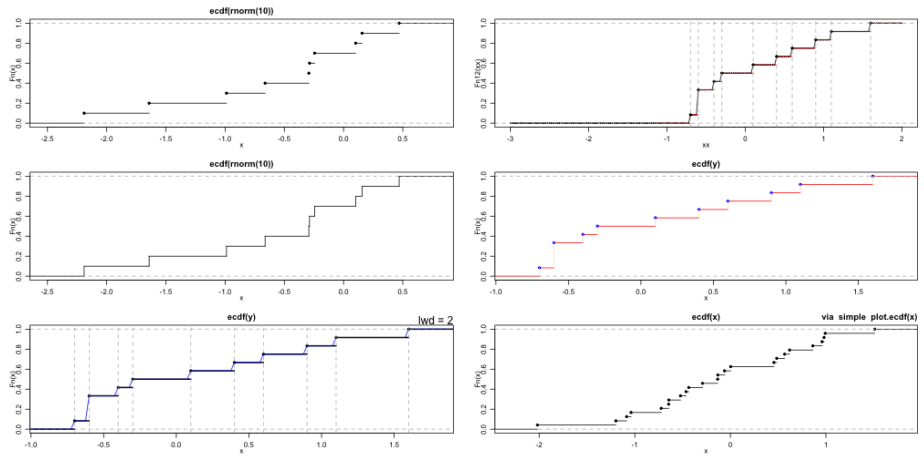


merge(d1, d2, d3, d4) -> dendrogram with a 4-split

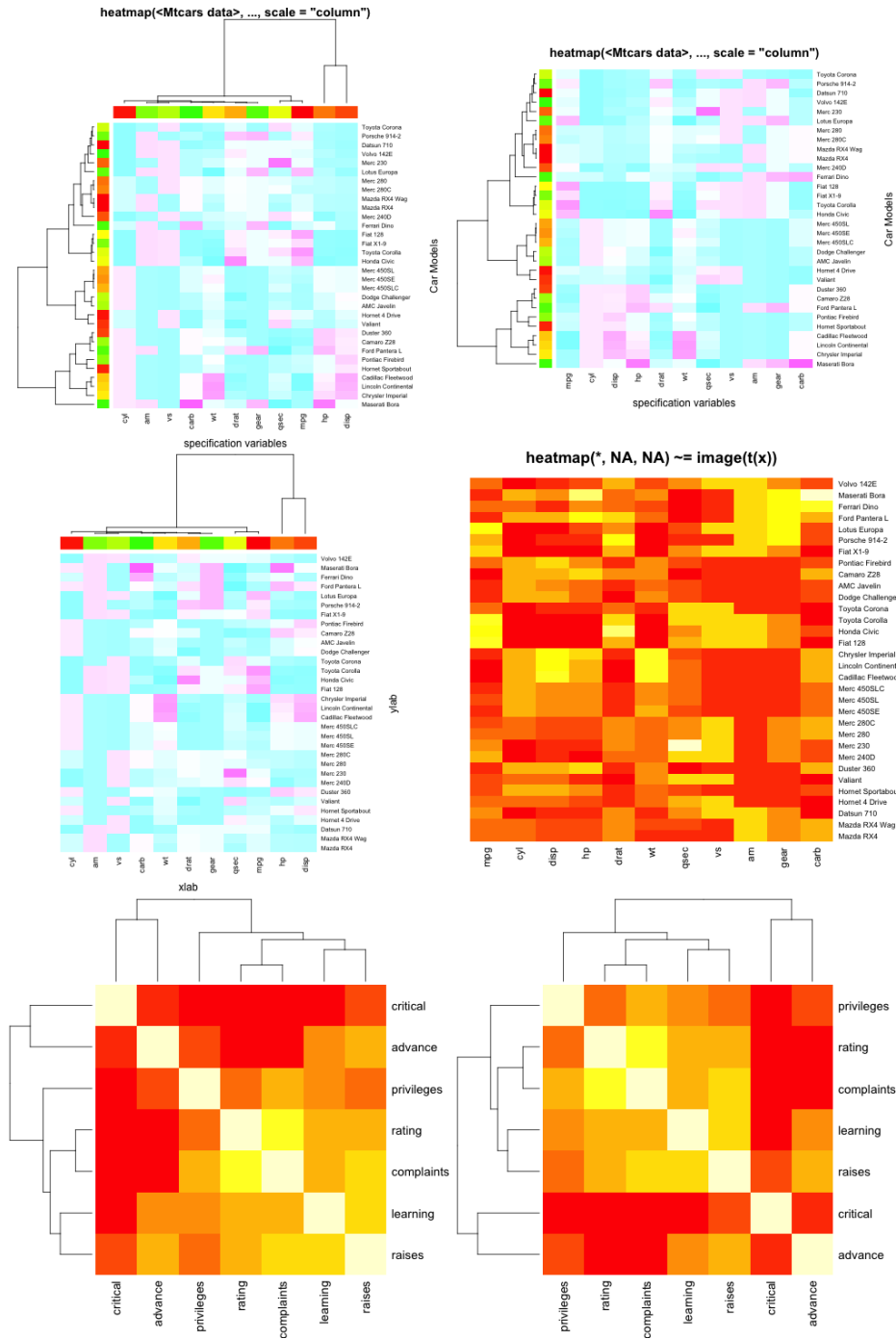


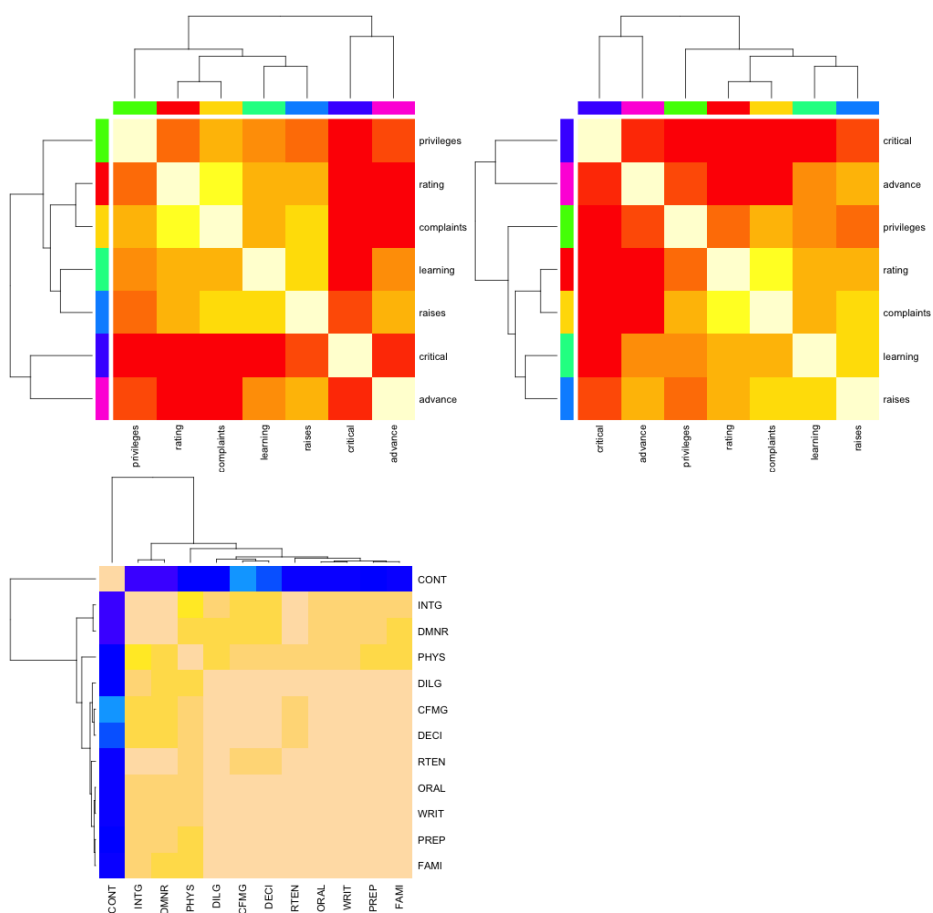


10.5 ecdf : Empirical Cumulative Distribution Function

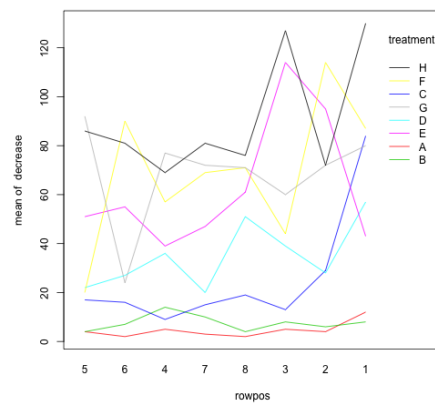
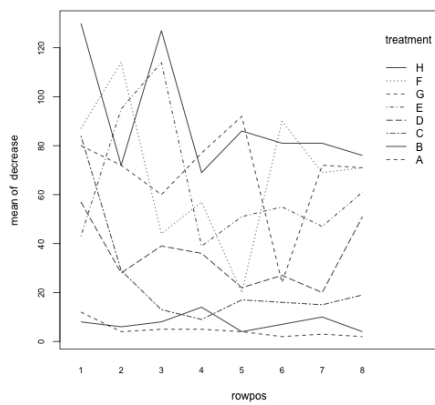
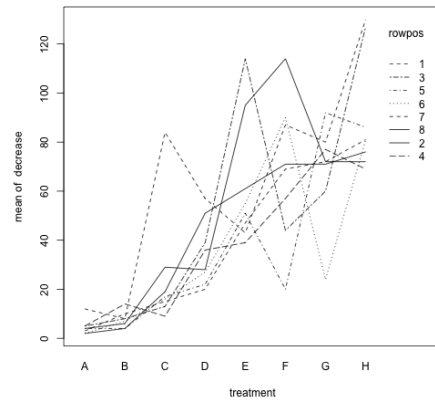
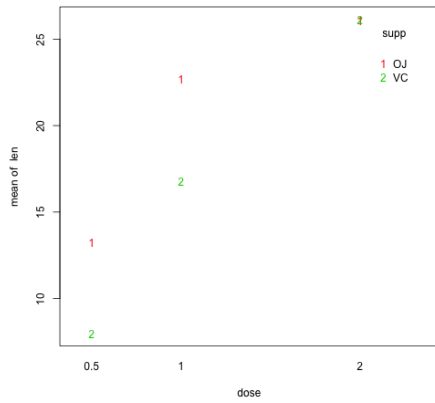
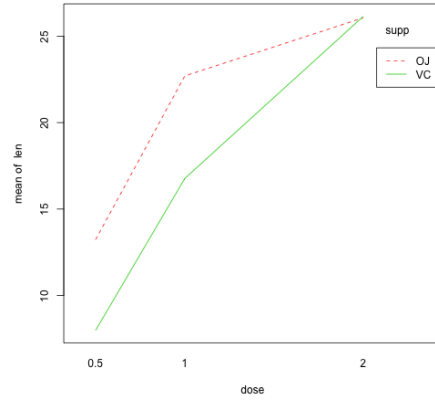
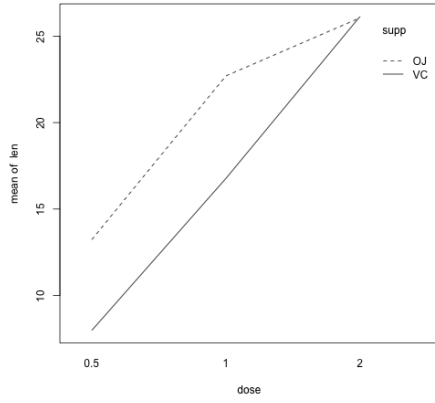


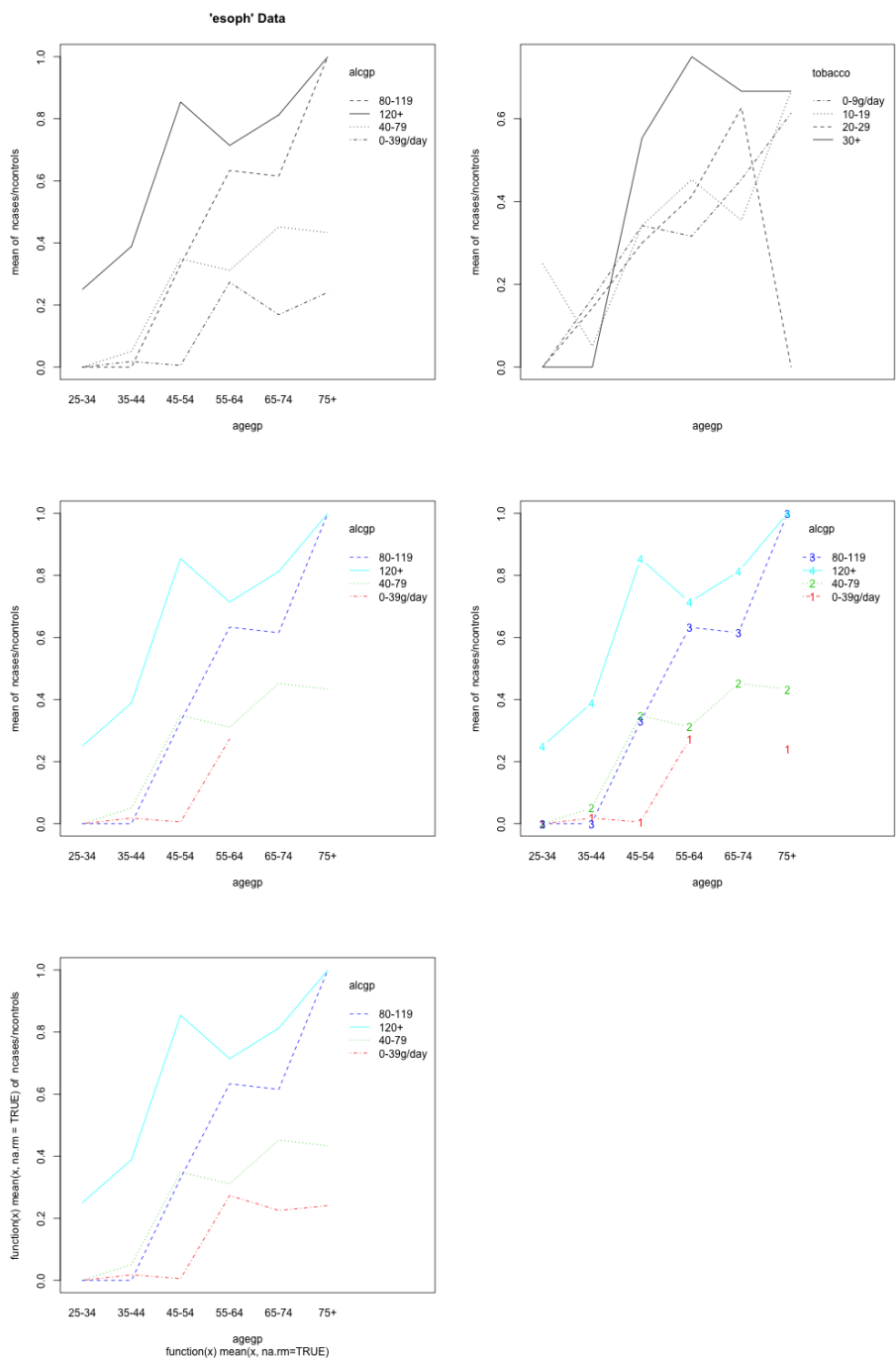
10.6 heatmap : Draw a Heat Map





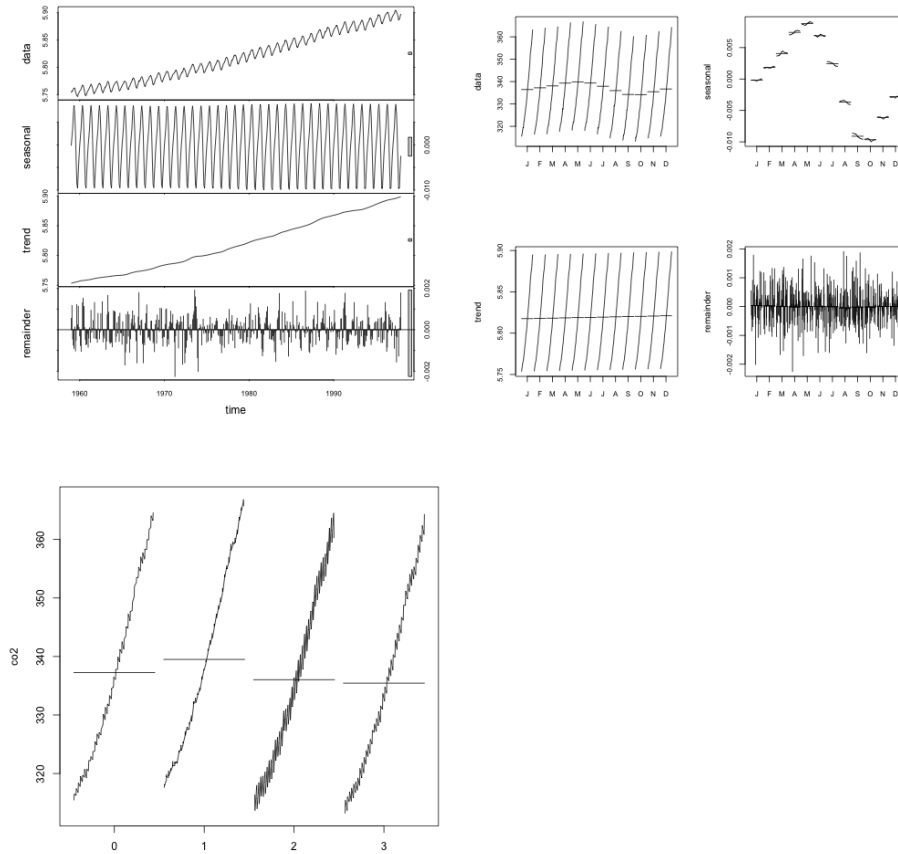
10.7 interaction.plot : Two-way Interaction Plot



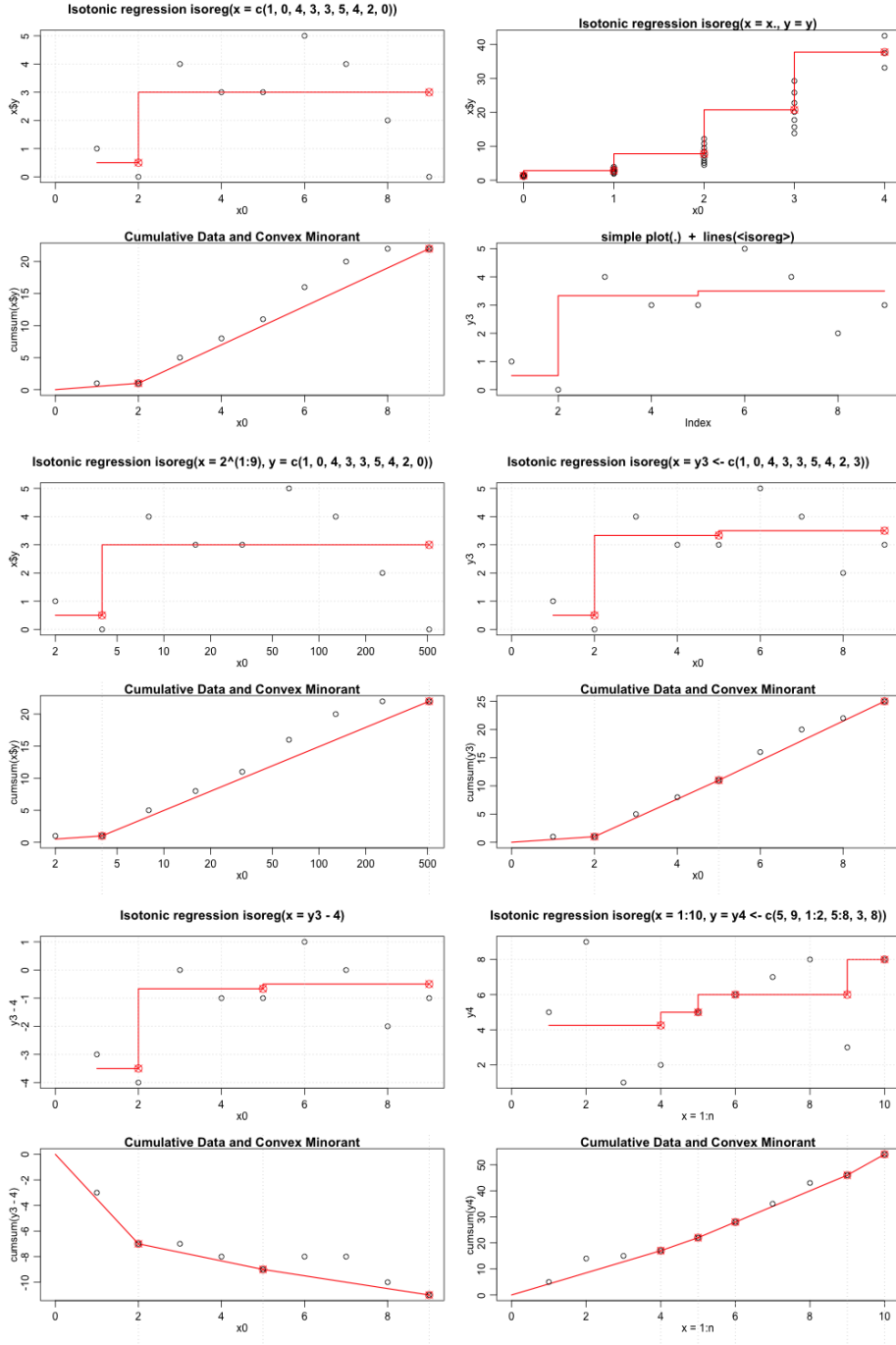


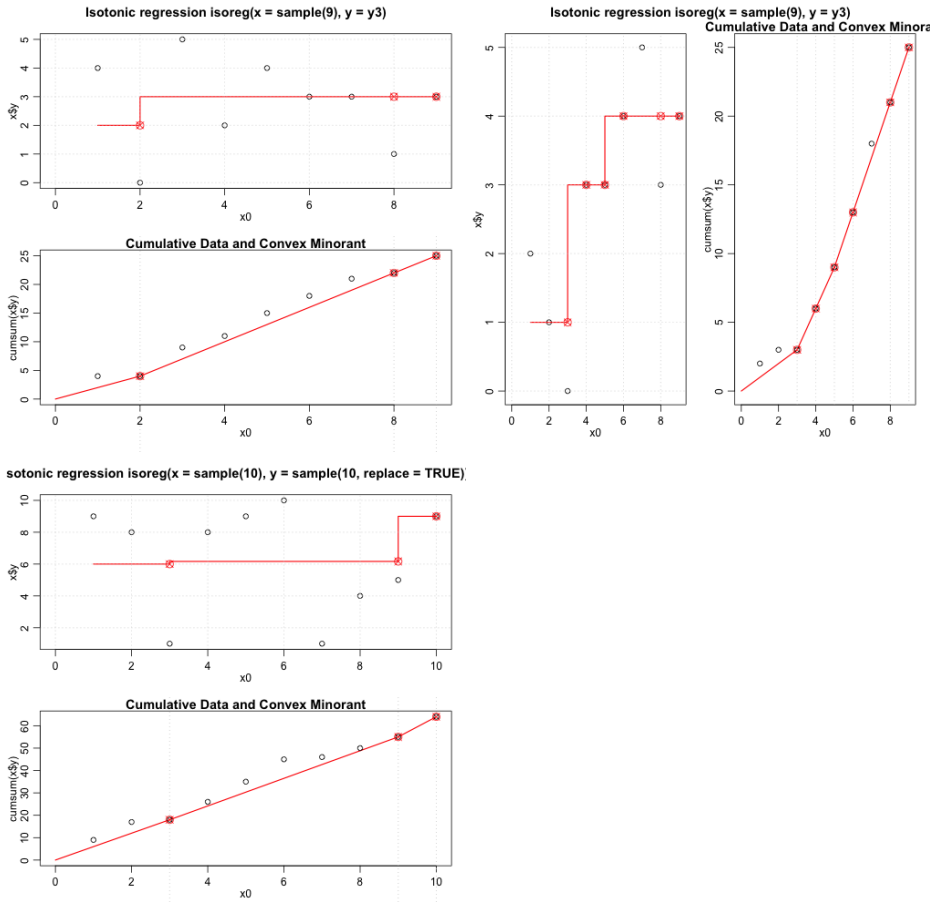
10.8 lag.plot : Time Series Lag Plots

10.9 monthplot : Plot a Seasonal or other Subseries from a Time Series

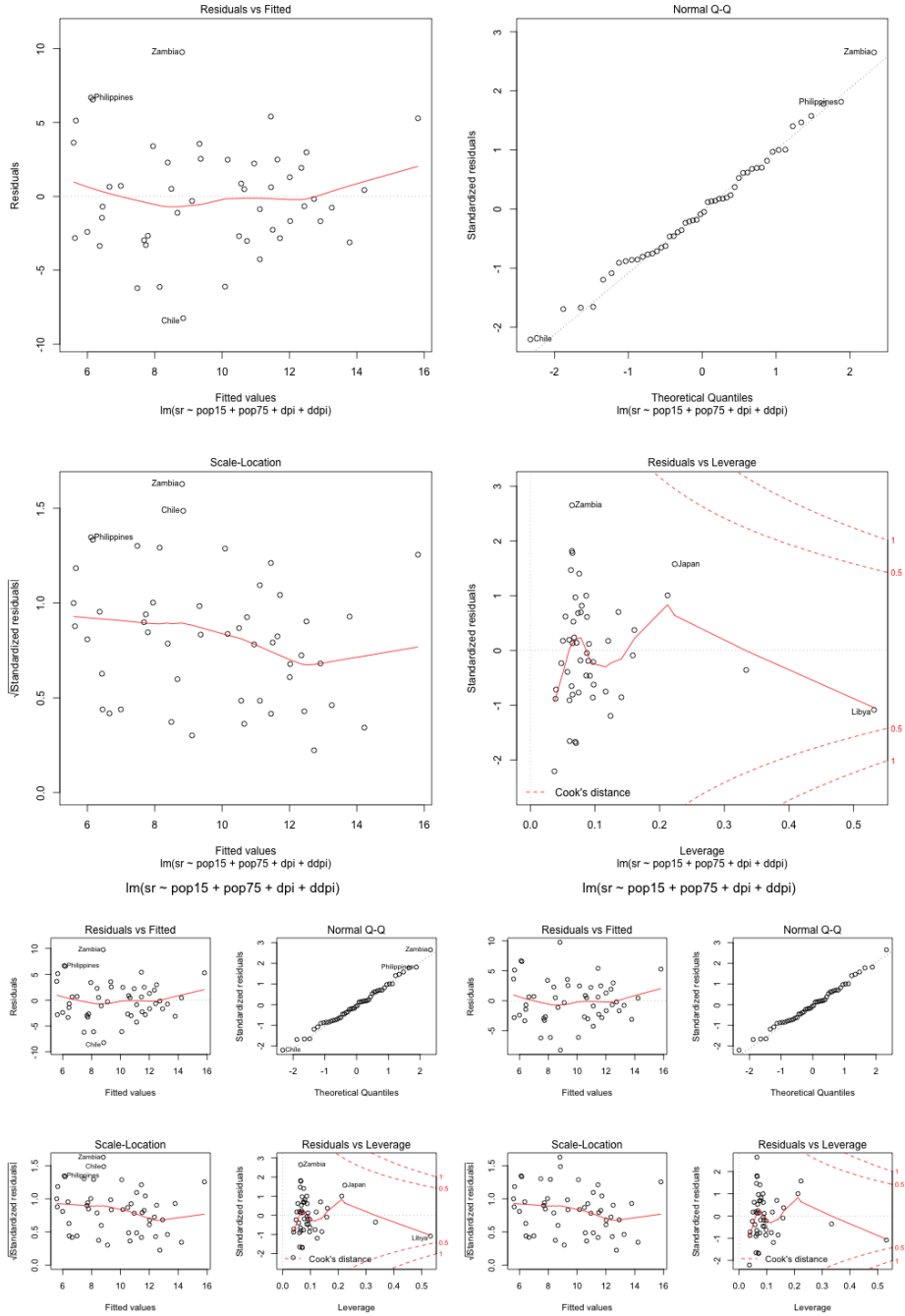


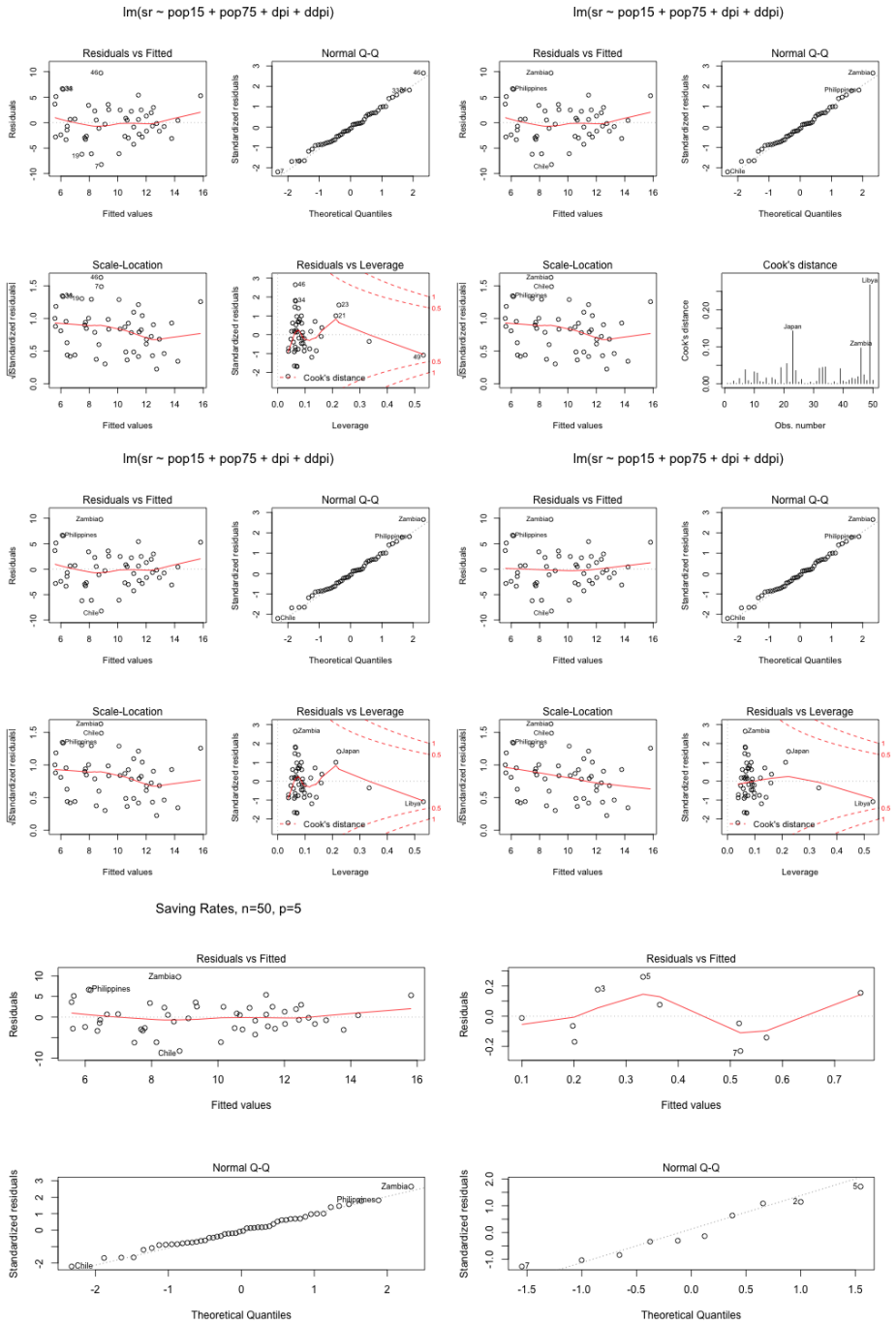
10.11 plot.isoreg : Plot Method for isoreg Objects



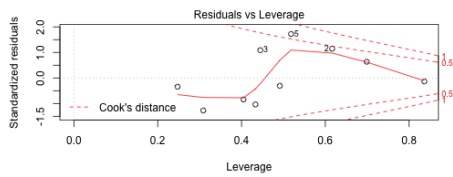
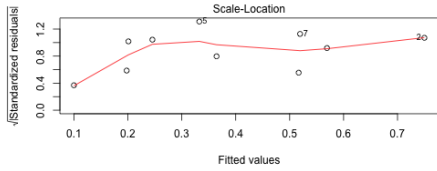


10.12 plot.lm : Plot Diagnostics for an lm Object

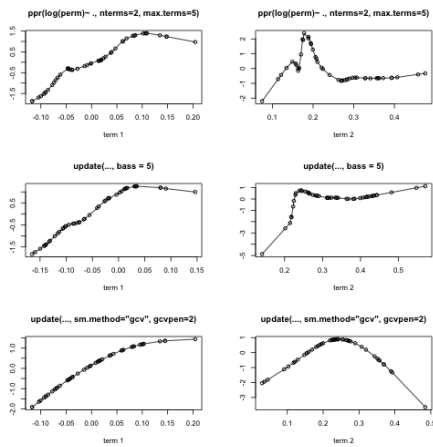




(long.var.name.1 ~ long.var.name.2 + long.var.name.3 + long.var.name.4 +

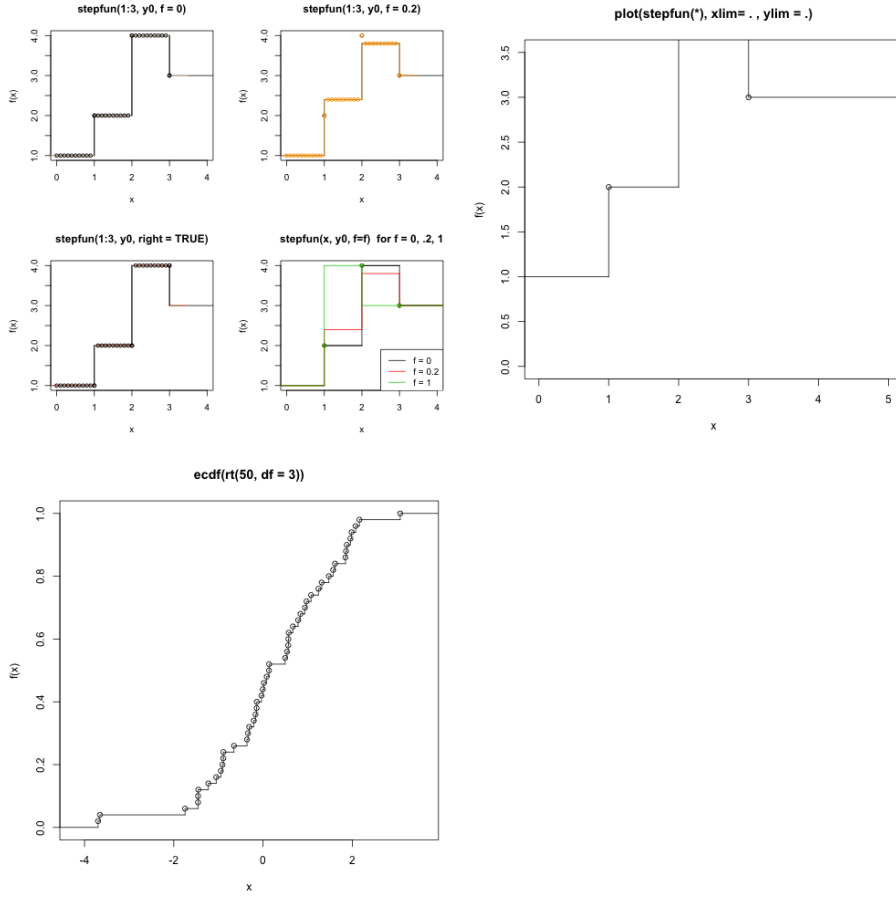


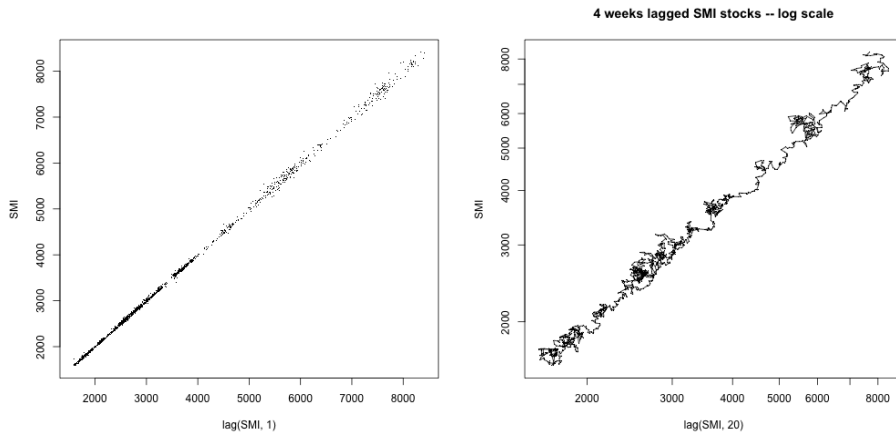
10.13 plot.ppr : Plot Ridge Functions for Projection Pursuit Regression Fit



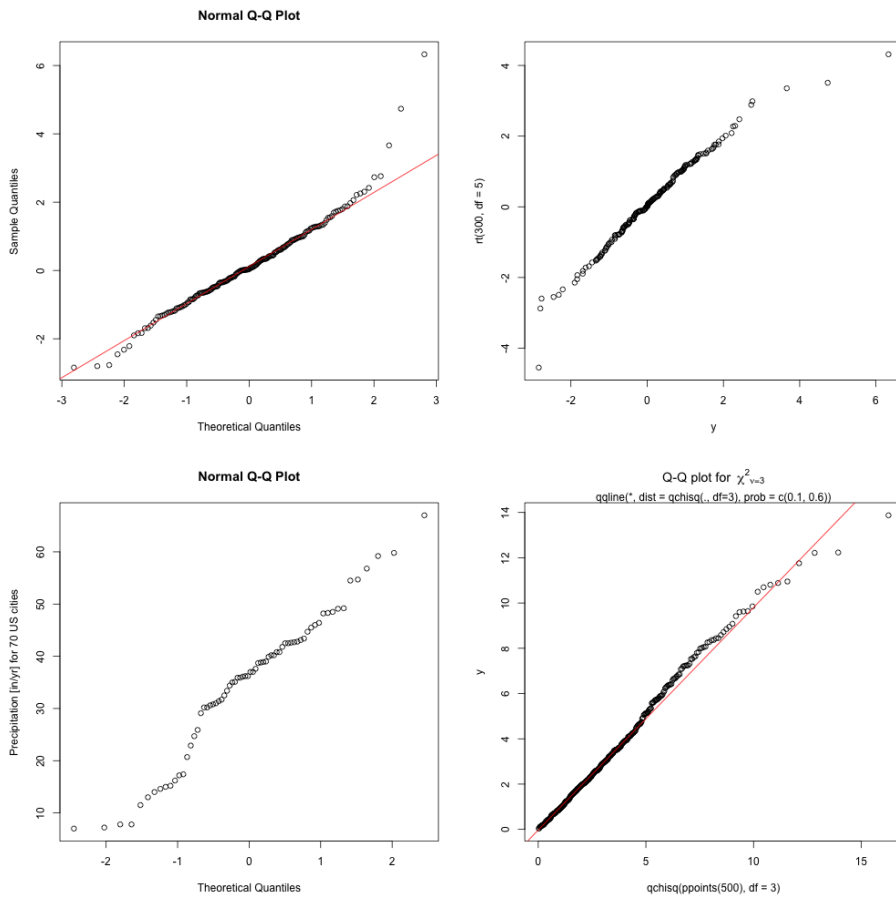
10.14 plot.spec : Plotting Spectral Densities

10.15 plot.stepfun : Plot Step Functions

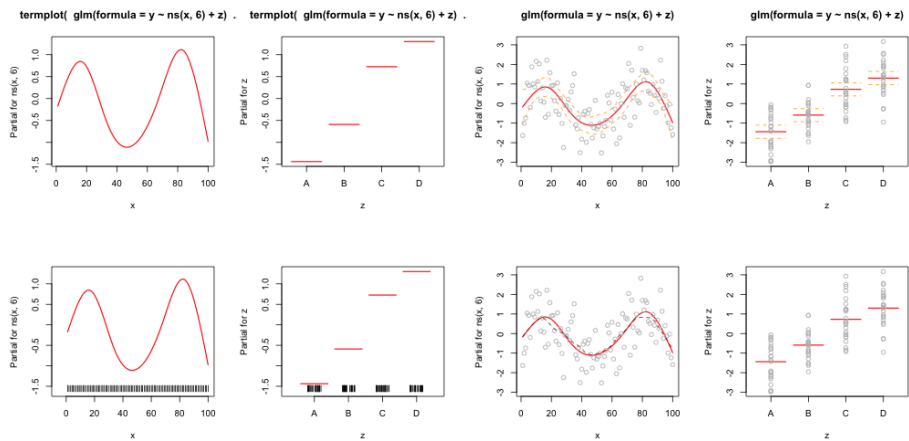




10.17 qqnorm : Quantile-Quantile Plots



10.18 termplot : Plot Regression Terms



11 survival 2.39-5

11.1 plot.survfit : Plot method for 'survfit' objects