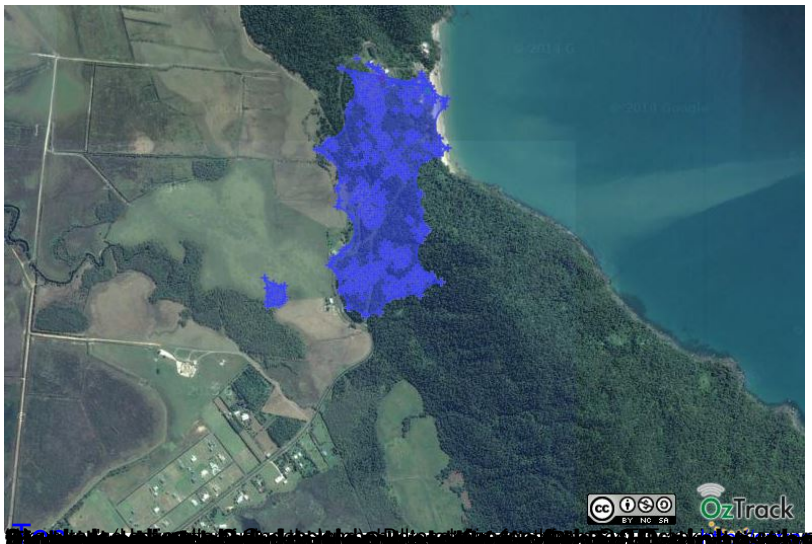
At present, the group members maintain and develop the following libraries in R. The total number of libraries are 6:

1) alphahull: Computation of the alpha-shape and alpha-convex hull of a given sample of points in the plane.
2) alphashape3d: Implementation of the 3D alpha-shape for the reconstruction of 3D sets from a point cloud.
3) fda.usc: Functional Data Analysis and Utilities for Statistical Computing.
4) NPCirc package.
5) DCL: Double Chain Ladder Model.
6) DOvalidation: Local Linear Hazard Estimation with Do-Validated and Cross-Validated Bandwidths.

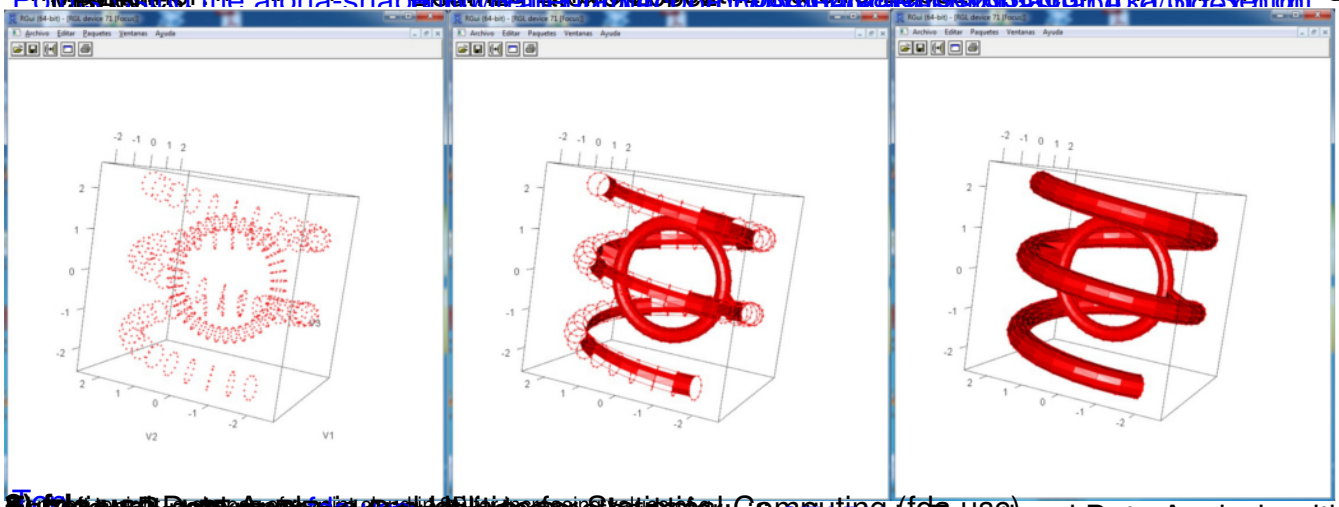
1) alphahull: Computation of the alpha-shape and alpha-convex hull of a given sample of points in the plane.

The concepts of alpha-shape and alpha-convex hull generalize the definition of the convex hull of a finite set of points. The programming is based on the duality between the Voronoi diagram and Delaunay triangulation. The package also includes a function that returns the Delaunay mesh of a given sample of points and its dual Voronoi diagram in one single object.

Version:	2.0
Published:	2015-03-20
Author:	Beatriz Pateiro-Lopez, Alberto Rodriguez-Casal
Maintainer:	Beatriz Pateiro-Lopez beatriz.pateiro@usc.es
Vignettes:	Generalizing the Convex Hull of a Sample: The R Package alphahull
CRAN:	http://cran.r-project.org/web/packages/alphahull/index.html



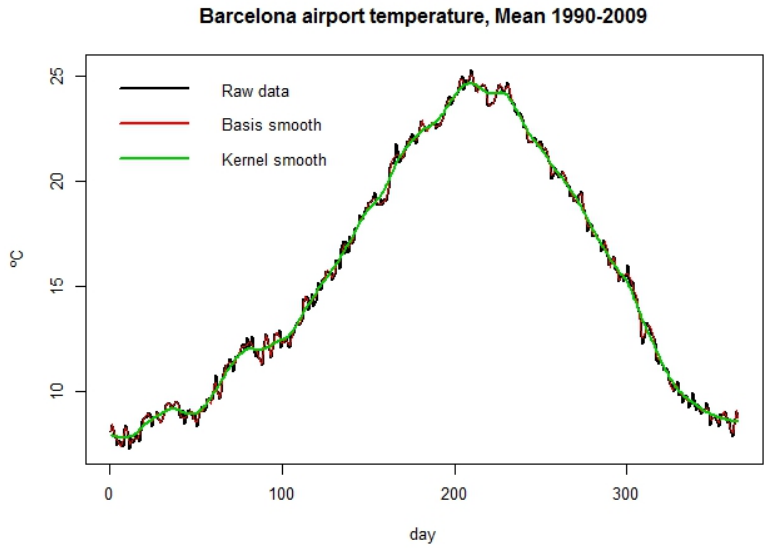
[illegible]

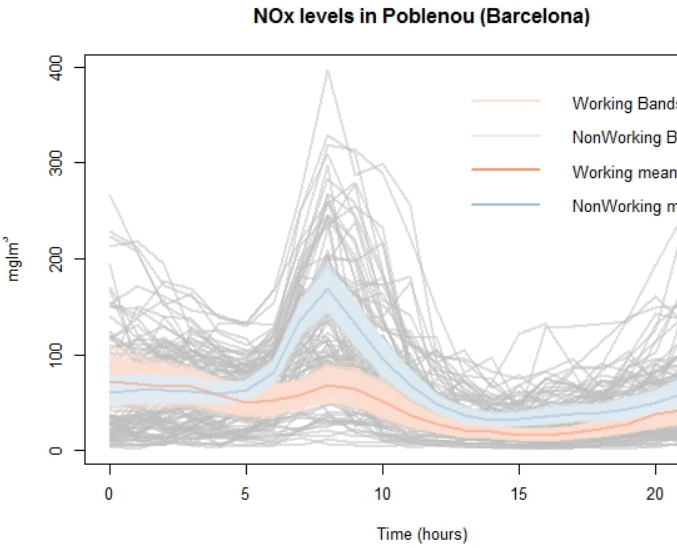


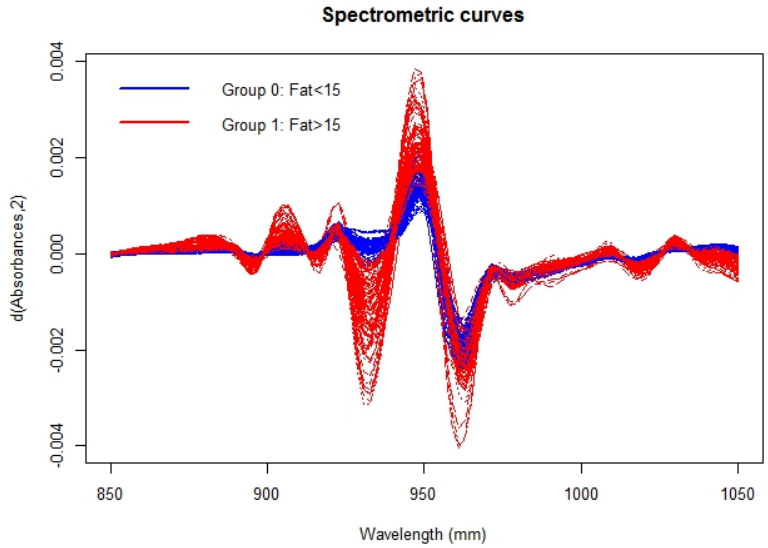
[illegible] Computing (fda.usc)

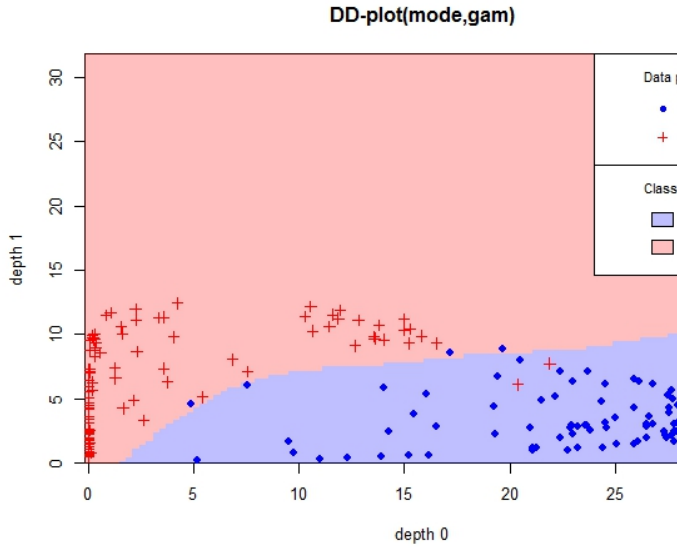
[illegible] Data Analysis with [illegible] documentation are available.

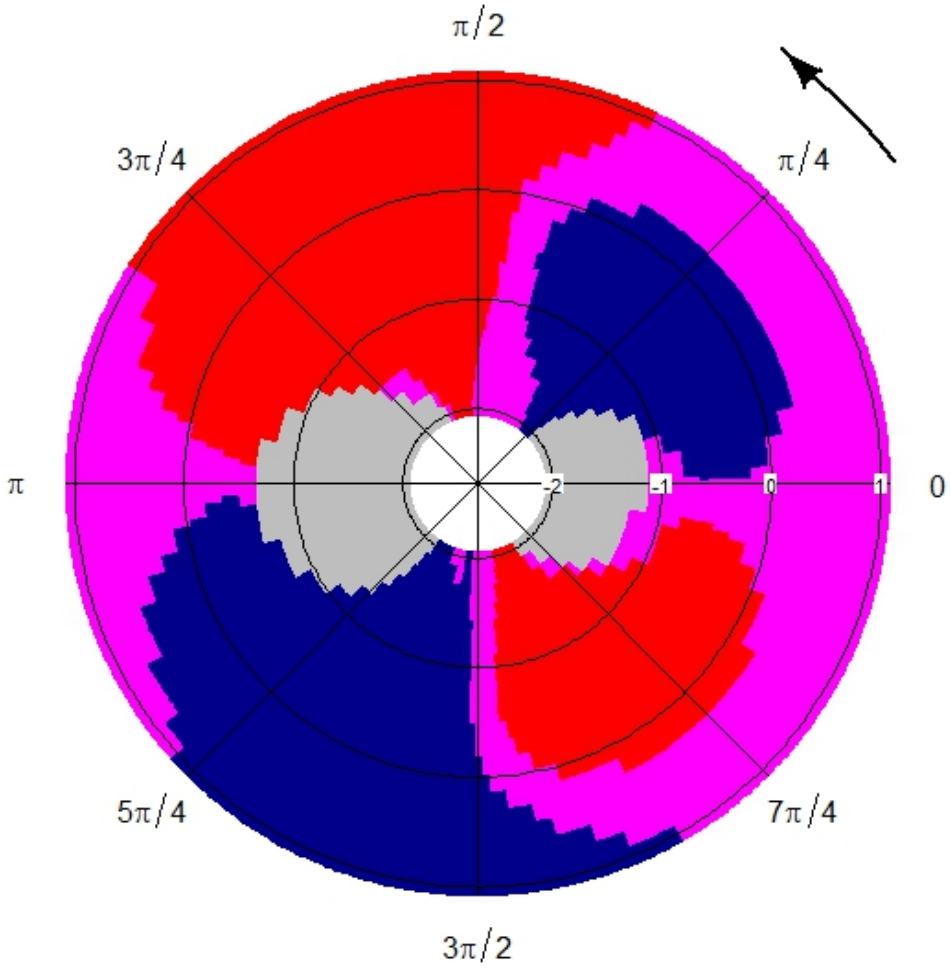
Newschange Log: [illegible]


Barcelona airport temperature, Mean 1990-2009
Raw data
Basis smooth
Kernel smooth
°C
day

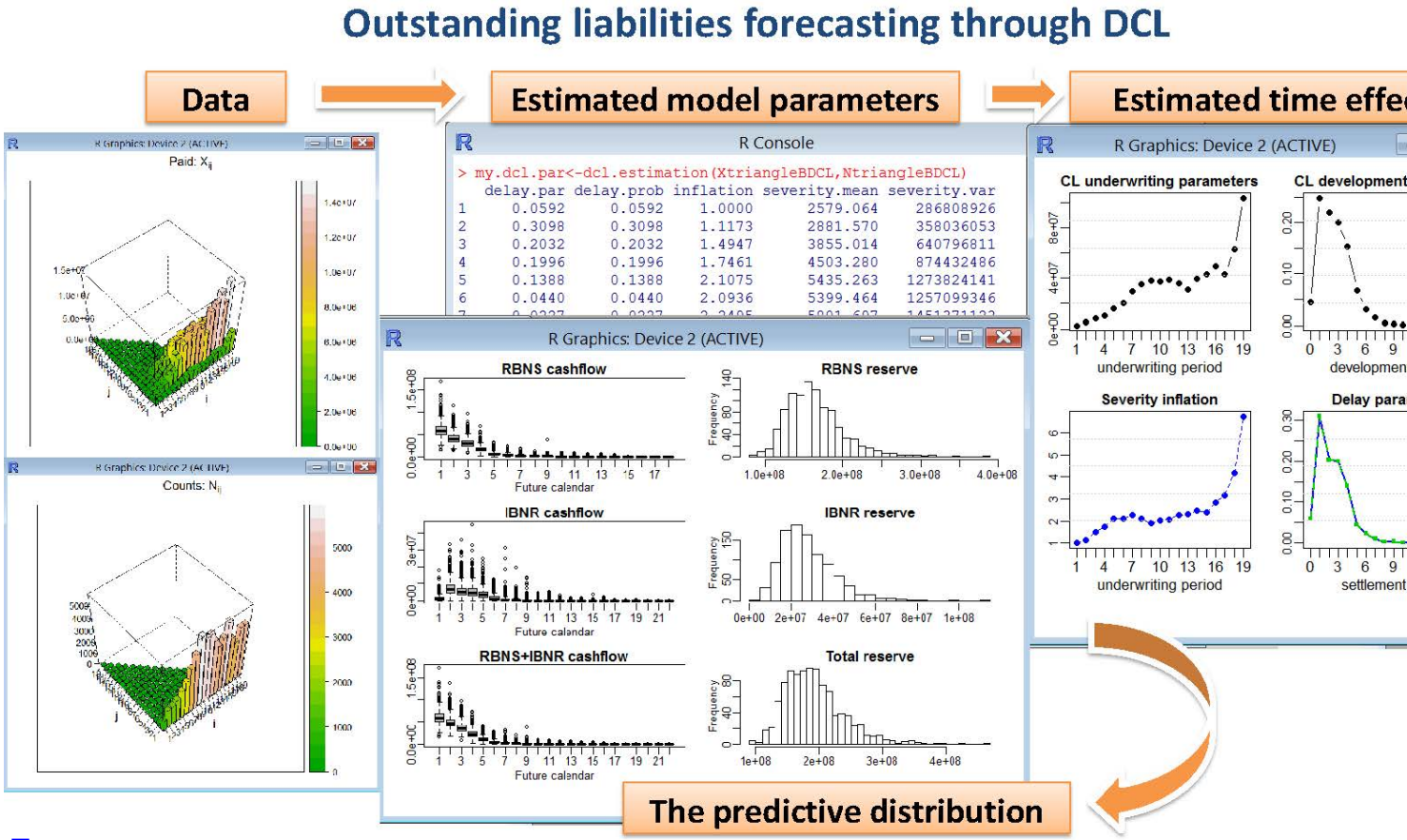

NOx levels in Poblenou (Barcelona)
Working Bands
NonWorking B
Working mean
NonWorking m
mg/m³
Time (hours)

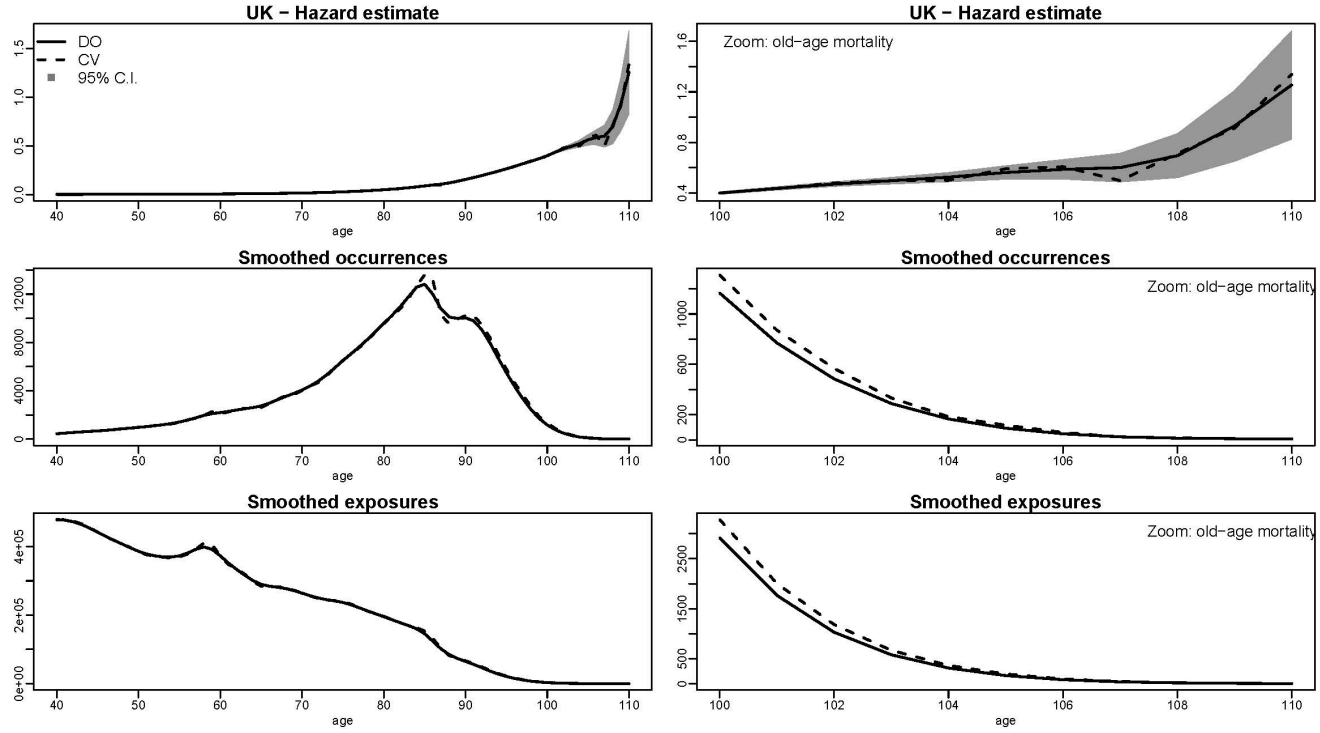

Spectrometric curves
Group 0: Fat<15
Group 1: Fat>15
d(Absorbances,2)
Wavelength (mm)


DD-plot(mode,gam)
Data
Class
depth 1
depth 0



Martínez-Miranda and Richard Verrall , r-release:


Outstanding liabilities forecasting through DCL
Data
Estimated model parameters
Estimated time effe
R Graphics: Device 2 (ACTIVE)
Paid: X_{ij}
Counts: N_{ij}
R Console
> my.dcl.par<-dcl.estimation(XtriangleBDCL,NtriangleBDCL)
delay.par delay.prob inflation severity.mean severity.var
1 0.0592 0.0592 1.0000 2579.064 286808926
2 0.3098 0.3098 1.1173 2881.570 358036053
3 0.2032 0.2032 1.4947 3855.014 640796811
4 0.1996 0.1996 1.7461 4503.280 874432486
5 0.1388 0.1388 2.1075 5435.263 1273824141
6 0.0440 0.0440 2.0936 5399.464 1257099346
R Graphics: Device 2 (ACTIVE)
RBNS cashflow
RBNS reserve
IBNR cashflow
IBNR reserve
RBNS+IBNR cashflow
Total reserve
Future calendar
Frequency
R Graphics: Device 2 (ACTIVE)
CL underwriting parameters
CL development
Severity inflation
Delay para
underwriting period
development
settlement
The predictive distribution


UK − Hazard estimate
DO
CV
95% C.I.
age
UK − Hazard estimate
Zoom: old−age mortality
Smoothed occurrences
Smoothed occurrences
Zoom: old−age mortality
Smoothed exposures
Smoothed exposures
Zoom: old−age mortality