violinpoint package example (version 0.3.0)

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Abstract

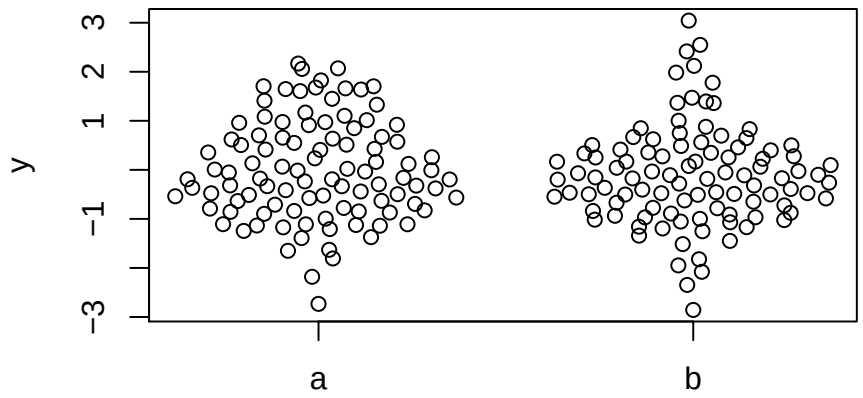
This is a collection of examples of usage for the **violinpoint** package.

Keywords: visualization, display, one dimensional, grouped, groups, violin, scatter, points, quasirandom, beeswarm, van der Corput.

1. The basics

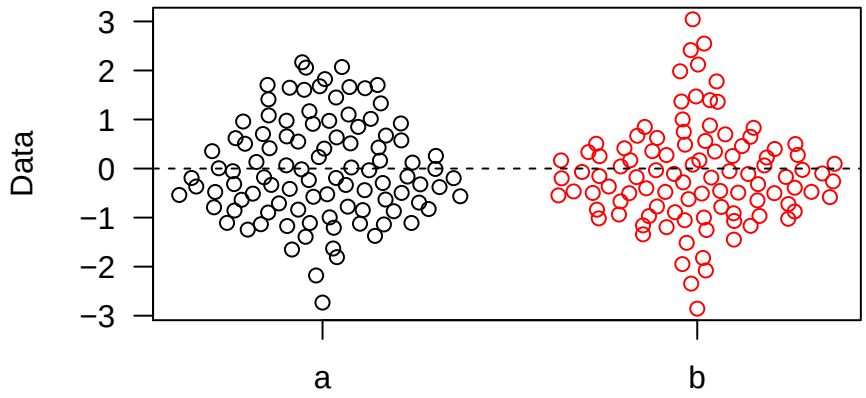
This is the simplest example of using the `vpPlot` function to generate violin scatter plots:

```
>   set.seed(1234)
>   n<-100
>   dat<-rnorm(n*2)
>   labs<-rep(c('a','b'),n)
>   vpPlot(labs,dat)
```



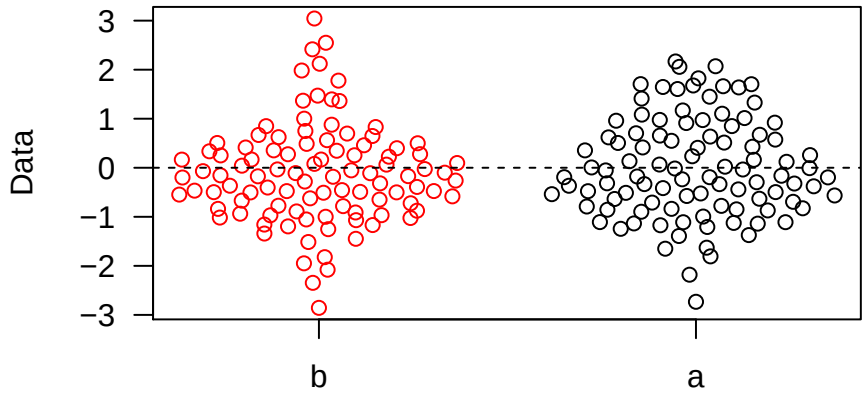
`vpPlot` is just a wrapper around `plot` so normal graphical options and functions can be used:

```
>   vpPlot(labs,dat,las=1,ylab='Data',col=rep(1:2,n))
>   abline(h=0,lty=2)
```



Factors can be used to generate custom group orderings:

```
>   labs2<-factor(labs,levels=c('b','a'))
>   vpPlot(labs2,dat,las=1,ylab='Data',col=rep(1:2,n))
>   abline(h=0,lty=2)
```



For custom plotting, the offsets for a group of points can be calculated using the `offsetX` function. The adjusted x position of the points is also returned invisibly from vpPlot:

```
>         offsets<-offsetX(dat,labs)
>         head(offsets,4)

[1]  0.03001841  0.26828027 -0.14363851 -0.01613251

>         xPos<-vpPlot(labs,dat)
>         head(xPos,4)

[1] 1.0300184 2.2682803 0.8563615 1.9838675

>         xPos2<-rep(1:2,n)+offsets
>         head(xPos2,4)

[1] 1.0300184 2.2682803 0.8563615 1.9838675

>         all(xPos==xPos2)

[1] TRUE
```

Note that `offsetX` returns offsets centered around 0 which will need to be added to the original x positions.

2. The basics

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Github: http://github.com/sherrillmix/violinpoint