

# Package ‘GIplot’

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**Type** Package

**Title** Gaussian Interval Plot (GIplot)

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**Description** The Gaussian Interval Plot (GIplot) is a pictorial representation of the mean and the standard deviation of a quantitative variable. It also flags potential outliers (together with their frequencies) that are  $c$  standard deviations away from the mean.

**License** GPL-3

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GIplot *Gaussian Interval Plot (GIplot)*

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### Description

The Gaussian Interval Plot (GIplot) is a pictorial representation of the mean and the standard deviation of a quantitative variable. It also flags potential outliers (together with their frequencies) that are  $c$  standard deviations away from the mean.

**Usage**

```
GIplot(x, ...)

## Default S3 method:
GIplot(
  x,
  ...,
  horizontal = TRUE,
  names = c(),
  add = FALSE,
  at = 0,
  valueOfc = 2.33,
  axisLabel = "",
  main = paste("GI Plot of ", axisLabel),
  sptype = T
)

## S3 method for class 'formula'
GIplot(
  formula,
  dataset = NULL,
  horizontal = TRUE,
  names = c(),
  add = FALSE,
  at = 0,
  valueOfc = 2.33,
  axisLabel = "",
  main = paste("GIPlot of ", axisLabel),
  sptype = T,
  ...
)
```

**Arguments**

<code>x</code>	a numeric vector or a single list or a data frame
<code>...</code>	more numeric vectors for the GIplot
<code>horizontal</code>	Logical.TRUE (Default) for horizontal GIPlot and FALSE for vertical.
<code>names</code>	names of the sub-groups for which separate GIPlots are drawn on the same scale.
<code>add</code>	Logical. TRUE adds a new GIplot to the existing plot. FALSE (Default) will create a new plot.
<code>at</code>	If add = TRUE, the position at which the new GIplot should be placed.
<code>valueOfc</code>	the multiplier of sd to determine extreme bounds beyond which values are flagged as outliers. To flag alpha proportion of data in each tail use $c = qnorm(1-\alpha)$ . When $\alpha = 0.01$ , $c = qnorm(0.99) = 2.32$
<code>axisLabel</code>	label for the axis
<code>main</code>	title of the GIplot.

<code>spsize</code>	Logical. TRUE (Default) adds a sample size to the GIplot.
<code>formula</code>	a formula, such as <code>x ~ grp</code> , where <code>x</code> is a numeric vector of data values to be split into groups according to the grouping variable <code>grp</code> (usually a factor). Note that <code>~ g1 + g2</code> is equivalent to <code>g1:g2</code> .
<code>dataset</code>	a <code>data.frame</code> from which the variables in formula should be taken.

**Value**

displays the GIplot

**Examples**

```
#For vectors  
x<- rnorm(90,30,10)  
GIplot(x)
```

```
#For Formula Class  
groupA <- rep(c(1,2,3),30)  
GIplot(x~groupA)
```

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