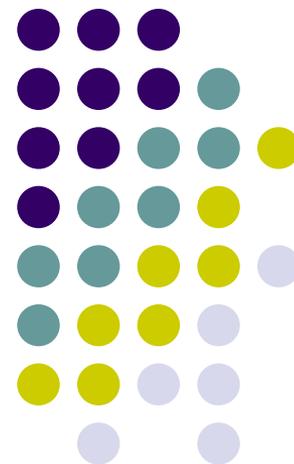
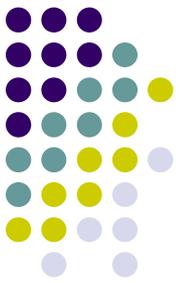


# Statistical Animations Using R

Yihui Xie  
useR! 2008 @ Dortmund  
Aug 11, 2008



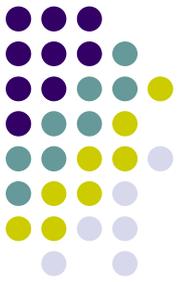


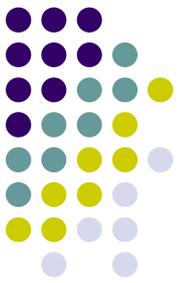
- Did you know that there are *three* kinds of statisticians - those that can count and those that can't.
- Statistics are like a bikini; What is revealed is interesting; What is concealed is crucial.

<http://www.ilstu.edu/%7Egcrumsey/Gallery.html>

# Outline

- The animation package
- Demonstrations
- Future developments

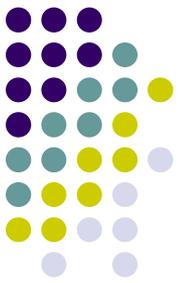




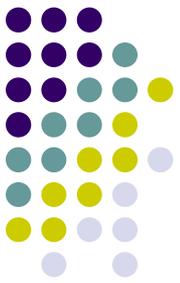
# The animation package

- Yihui Xie (2008). animation: Demonstrate Animations in Statistics. R package version 1.0-1. <http://animation.yihui.name>
- To turn ideas into animations (as quickly & faithfully as possible...)
- Based on the common characteristic of animation and some statistical procedures
- To produce animations in various formats

# The animation package (cont)

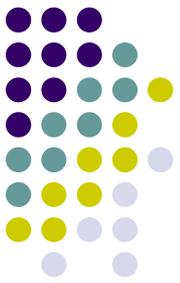


```
for (i in 1:360) {  
  plot(1, ann = FALSE,  
       type = "n", axes =  
       FALSE)  
  text(1, 1,  
       "Animation", srt =  
       i, col =  
       rainbow(360)[i],  
       cex = 7 * i/360)  
  Sys.sleep(0.01)  
}
```



# Demonstrations

- Package features
  - Animations using R windows graphics devices
  - Creating animations in HTML pages (animated by JavaScript)
  - Third-party software
    - ImageMagick: GIF, MPEG (convert)
    - SWF Tools: Flash (png2swf, jpeg2swf, pdf2swf)
- Statistical animations
  - Not "Tom & Jerry", but stuff like CLT, kNN, ...



# Future developments

- More animations in statistics
- Interactivity in the Web via "Rweb"
- Probably a GUI? (Tcl/Tk, gWidgets)
- SWF Tools utility "swfc"

# Thanks



- Contact me
  - xie [at] yihui.name
  - (+86)-10-82509086
  - <http://www.yihui.name/>

