R is dope AF

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Contents

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R version: 3.5.0
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This document can be found at https://github.com/darwinanddavis/SchistoIBM/tree/master/mac

R session info

```
params$session
```

```
R version 3.5.0 (2018-04-23)
Platform: x86_64-apple-darwin15.6.0 (64-bit)
Running under: OS X El Capitan 10.11.6

Matrix products: default
BLAS: /Library/Frameworks/R.framework/Versions/3.5/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/3.5/Resources/lib/libRlapack.dylib

locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8

attached base packages:
[1] stats     graphics  grDevices utils     datasets  methods   base

loaded via a namespace (and not attached):
 [1] compiler_3.5.0  backports_1.1.2 magrittr_1.5    rprojroot_1.3-2 tools_3.5.0     htmltools_0.3.6
 [7] pillar_1.2.3    tibble_1.4.2    yaml_2.2.0      Rcpp_0.12.19    stringi_1.2.3   rmarkdown_1.10
[13] knitr_1.20      stringr_1.3.1   digest_0.6.15   rlang_0.3.0.1   evaluate_0.10.1
```

Overview

This document showcases why `R` is **dope**.

You can write in-line `code`, equations like this $E = mc^2$, create links to your website.

Just like LateX, but *more versatile.*

Create quoted text

> Pump the bass in the trunk //
> It rattled like a baby hand //
> Except this toy cost 80 grand //
> And I'm crazy tan, from all the places that I've been //
> Just from writing words with a pen //

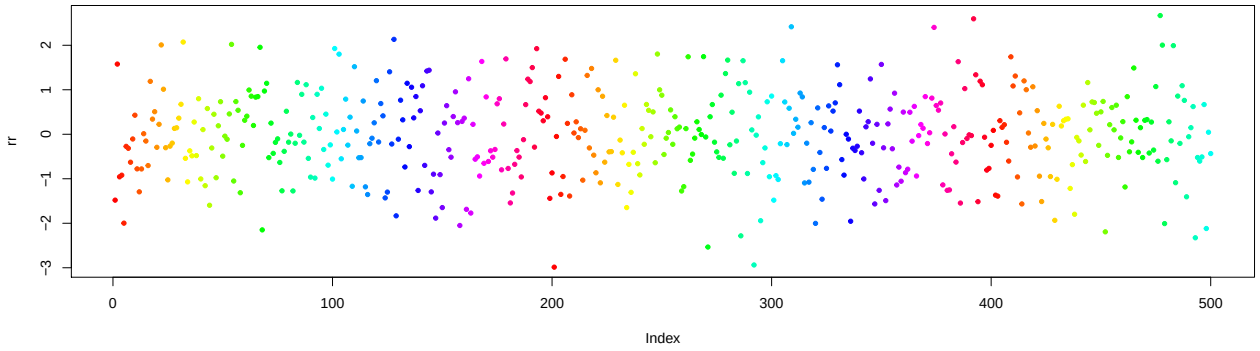
Define equations

$$t' = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}}$$

Embed images/gifs:

.

```
set.seed(12)
rr <- rnorm(500)
plot(rr,col=rainbow(200),pch=20)
```




```
require(viridis)
set.seed(12)
rr <- rnorm(500)
plot(rr,las=1,bty="n",col=adjustcolor(magma(50),0.5),pch=20,cex=runif(10, 1, 5),
     main="Some randomly distributed data, \nbut plot better")
```

Embed code from different languages.

This is `R` code

```
if(pck==1){
  p<-c("rJava", "RNetLogo"); remove.packages(p)
  # then install rJava and RNetLogo from source
  install.packages("rJava", repos = "https://cran.r-project.org/", type="source"); library(rJava)
  install.packages("RNetLogo", repos = "https://cran.r-project.org/", type="source"); library(RNetLogo)
}
```

`shell/bash`

```
echo "Hello Bash!"
pwd # check working dir
git init # initialise git
```

Octave (and MATLAB from the `RMatlab` package).
RMatlab documentation.

```
b = [4; 9; 2] # Column vector
A = [ 3 4 5;
      1 3 1;
      3 5 9 ]
x = A \ b     # Solve the system Ax = b
```

HTML

```
<!-- links-->
        <div class="footer">
            <a href="dd_feed.html"
            class="transition fade_in">
                Latest post
            </a>
                 
            <a href="dd_contact.html"
            class="transition fade_in">
                Contact
            </a>
                 
            <a href="dd_subscribe.html"
            class="transition fade_in">
                Subscribe
            </a>
        </div>
```

CSS

```
body {
  color: red;
}
```

Javascript to access `html` and `css`

```
$('.title').css('color', 'red')
```

Python

```
x = 'hello, python world!'
print(x.split(' '))
```

Here's a complete list of available languages

```
names(knitr::knit_engines$get())
```

```
 [1] "awk"       "bash"      "coffee"    "gawk"      "groovy"    "haskell"   "lein"      "mysql"
 [9] "node"      "octave"    "perl"      "psql"      "Rscript"   "ruby"      "sas"       "scala"
[17] "sed"       "sh"        "stata"     "zsh"       "highlight" "Rcpp"      "tikz"      "dot"
[25] "c"         "fortran"   "fortran95" "asy"       "cat"       "asis"      "stan"      "block"
[33] "block2"    "js"        "css"       "sql"       "go"        "python"    "julia"
```

All from R!