

# More R References

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## General Links

- [R manual](#)
- [Topic Views](#)
- [Community Blogs](#)

## RMarkdown Links

- The `knitr` package was invented by Yihui Xie, who has written a very useful book (in RMarkdown) with J. J. Allaire and Garrett Golemund called [R Markdown: The Definitive Guide](#).
  - [Beamer Presentations](#)
  - [PowerPoint Presentations](#)
  - [PDF Documents](#)
- RStudio also offers a walk-through guide called [RMarkdown from RStudio](#)
- [knitr package documentation](#)
  - If you are curious about how `knitr` works on the back-end, also check out [pandocs](#)
  - [Options](#) for `knitr` chunks (code blocks)
- An RMarkdown tutorial targetted at students for class reports: [Using R Markdown for Class Reports](#)

## RStudio

- [RStudio Cheat Sheet](#)
- Other [RStudio Cheat Sheets](#) on a variety of topics
- [Keyboard Shortcuts in RStudio](#) (Tip: Highlight a section of code you want to comment out, and use the keyboard shortcut for speed)

## R Packages

- CRAN provides a [comprehensive list of packages](#) (sorted alphabetically) with a brief explanation of what each package is for
- They also provide a information about [Contributed packages](#)
- RStudio provides a shorter list of [Recommended Packages](#)
- There's also an entire book, called [R Packages](#) written by Hadley Wickham and Jenny Bryan freely available online

## Scientific Computing and HPC with R

- CRAN's [High-Performance and Parallel Computing with R](#) is a *very* comprehensive list of packages available for various performance-oriented codes
- [parallel package documentation](#), a library to enable parallel computing in R

- [How-to go parallel in R – basics + tips](#)
- [Profiling](#)
- [Big Data strategies for R](#)

## Some R Coding Tidbits

- [How to Reuse Functions That You Create In Scripts](#) - this is part of a tutorial for Earth Science Data Analytics
- Another free online textbook [Applied Statistics with R](#) by David Dalpiaz

## Using R in Containers

### Getting Started with Containers

First, if you are unfamiliar with containers, then you may want to check out:

- [XSEDE Container Tutorial](#)
- [Docker tutorial](#)
- [Docker documentation](#)
- [Singularity tutorial](#)
- [Singularity documentation](#)

Note that Docker is generally used in the cloud, but is not available on HPC systems or systems that you don't have administrative access to. Singularity is available on many HPC systems and can run on systems without administrative access.

### R Containers

And when you're ready to try out R containers, there are several projects providing containers with R. Some container images include other software as well. Here's a small sample of what's available:

- [Official R Docker images on DockerHub](#)
- [R and Singularity](#)
- [The Rocker Project](#) - Docker containers for R
- [Running Rocker in Singularity](#)
- [Jupyter Docker containers](#), including several oriented toward Data Science and including R
  - [Docker images on DockerHub](#)
  - [Running a container](#)