

## Workshop (Via Zoom)

# Practical hands-on beginner R/Rmarkdown workshop: R is easier than you think, time to move to R

3:00 p.m. – 6:00 p.m. (Hong Kong time) | October 29, 2021 (Friday)



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### Abstract

In this workshop I will introduce R and Rmarkdown using RStudio as powerful open-source tools to conduct high-quality open-science statistics.

R is a programming language that has in recent year been commonly used for statistical analyses, now far exceeding capabilities of other common statistical tools like SPSS, Stata, and SAS, with important advantages. Rmarkdown builds on top of R to allow the creation of dynamic documents that combine both code and text.

Some are reluctant to transition to R/Rmarkdown given perceived effort and time costs. Yet, there are now a variety of tools and packages that make R/Rmarkdown easier than ever before, even for those not proficient with programming. These new tools include point and click solutions, and packages only requiring simple single lines of code, which facilitate easy transition to R and allows for fast powerful stats, enhanced plotting, and better reproducibility.

I will first give a brief introduction to R and RStudio to familiarize you with the environment. I'll then cover tools to demonstrate an easy start to R/Rmarkdown and some common applications. I will conclude with discussing best practices and reproducibility.

#### Notes:

1. The workshop will be hands-on. I will guide you through the basics, and we will conduct these together on dataset examples.
2. This is not a stats workshop. I will assume basic knowledge of stats.
3. I'll be demonstrating R on RStudio, please download and install R/RStudio: <https://www.rstudio.com/products/rstudio/download/#download>, Quick howto video: [https://www.youtube.com/watch?v=d-u\\_7vdag-0](https://www.youtube.com/watch?v=d-u_7vdag-0)
4. I'll also be briefly demonstrating JAMOVI to R interfaces, so you're welcome to download JAMOVI: <https://www.jamovi.org/download.html>

#### Tools covered:

1. Statcloud: <https://statscloud.app/>
2. R Commander: <https://socialsciences.mcmaster.ca/jfox/Misc/Rcmdr/>
3. JAMOVI: <https://jamovi.org/> (using JAMOVI syntax mode and JMV package to easily convert JAMOVI to R, and running R in JAMOVI)
4. Easyverse - Easystats R packages: <https://github.com/easystats/easystats>, easy robust stats in simplified single lines of code.
5. Simple and powerful R packages: [ggstatsplot](https://github.com/ggstats/ggstats) and [tidyverse](https://github.com/tidyverse), data manipulation, stats, and plots in simplified single lines of code.
6. Shinyapps: [http://wiki.mgto.org/doku.php/r\\_shiny\\_apps](http://wiki.mgto.org/doku.php/r_shiny_apps)

#### Resources:

1. Collaborative R/Rmarkdown guide: <https://mgto.org/rrmarkdownguide>
2. Collaborative JAMOVI/JASP guide: <https://mgto.org/jamovijaspguide>
3. Previous open-science workshops can be found on: <https://www.youtube.com/playlist?list=PLRAF6P3W1K4cvLnkXXHb0jFUR-OwVcJ9k>
4. Open science tools and resources we developed at HKU: <https://mgto.org/resources>
5. Our mailing list about workshops and talks: <https://mgto.org/giladmailinglist>

Please do go over the resources and prepare questions you'd like me to address in the workshop.  
Feel free to email me in advance at [gfeldman@hku.hk](mailto:gfeldman@hku.hk) if there's a specific concern or practicality you'd like me to address.

**Register in advance for this meeting:**

[https://hku.zoom.us/meeting/register/tJwkfuCrqikjHtfbgzi\\_gbELxpiZlYLP80mM](https://hku.zoom.us/meeting/register/tJwkfuCrqikjHtfbgzi_gbELxpiZlYLP80mM)

After registration, you will receive a confirmation email containing information about joining the meeting.

**~All are Welcome~**

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