

Quarto LaTeX

Simonzhou

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2025-02-23		plotly		Rmarkdown	2024	PDF
	plotly	Quarto	PDF	R	TeXLive	

```
##
#install.packages("plotly")
#install.packages("mvtnorm")
library(plotly)
library(mvtnorm)
library(webshot2)

#
x <- seq(150, 190, length.out = 100)
# 150-190 100
y <- seq(50, 80, length.out = 100)
# 50-80 100
grid <- expand.grid(X = x, Y = y)
# x y

#
mu <- c(170, 65)
# 170 cm 65 kg

sigma <- matrix(c(100, 20, 20, 25), nrow = 2)
# 100 25 20

#
z <- dmvtorm(as.matrix(grid), mean = mu, sigma = sigma)
#

#
```

```
z_matrix <- matrix(z, nrow = 100, ncol = 100)

#
plot_ly(x = x, y = y, z = z_matrix, type = "surface") %>%
  layout(title = list(text = "          ", y=0.95),
    scene = list(xaxis = list(title = "  (cm)"),
      yaxis = list(title = "  (kg)"),
      zaxis = list(title = "  "))
```

双元正态分布的三维概率密度图

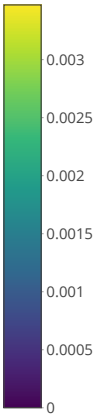


Figure 1: Binary normal distribution

0.1 1

PDF

0.2 2

PDF HTML R webshot webshot2 Quarto HTML

```
install.packages("webshot2")
```

```
library(webshot2)
```

```
install.packages("webshot")
```

webshot PhantomJS

```
webshot::install_phantomjs()
```

0.3 3 prefer-html: true

HTML PDF prefer-html: true HTML PDF

- .qmd YAML

```
format: pdf: toc: true # {yaml}
```

0.4 4 HTML

PDF HTML HTML

- R plotly htmlwidgets ggplot2
- {r, results='asis'} HTML PDF

```
#      HTML
library(plotly)
plot_ly(data, x = ~x, y = ~y, type = "scatter")

#      PDF
library(ggplot2)
ggplot(data, aes(x = x, y = y)) + geom_point()
```

0.5 Quarto TeXLive

terminal TeX Live

```
{bash eval = FALSE} TeX Live infrastructure update in progress ... TeX Live
infrastructure update in progress ... Detailed command logging to "C:\texlive\2024\temp\update.log"
self update: texlive.infra (70084 -> 73495) texlive.infra.windows (69813
-> 71447) tlmgrl.windows (69939 -> 71515) Infrastructure update finished
successfully. You may now close this window.
```

Quarto TeX Live preview .qmd

terminal TeX Live cmd

```
tlmgr update --self --all
```

Windows

```
C:\Users\asus>tlmgr update --self --all
Locale 'English_United States.936' is unsupported, and may crash the interpreter.
```

```
tlmgr update --self --all TeX Live Locale 'English_United States.936'
is unsupported, and may crash the interpreter TeX Live tlmgr locale
Windows 936 GBK tlmgr UTF-8
```

0.5.1 1

1.

- Win + R intl.cpl “ ”
- “ ” “ ”
- “ ” -> “ ” “ ” “ ”

2.

- 936 GBK TeX Live tlmgr
-

0.5.2 2 tlmgr

tlmgr

1.

- Win + R intl.cpl
- “ ” -> “ ”
- “ ” English (United States)
- “Beta: UTF-8 ” “ ”
- “ ”

2.

- cmd
-
- tlmgr update --self --all
-

3.

- “ ”
-

0.5.3 3

tlmgr

1. cmd

2.

```
set LC_ALL=en_US.UTF-8
```

3.

```
tlmgr update --self --all
```

4.

```
set LANG=en_US.UTF-8
```

```
tlmgr update --self --all
```

- LC_ALL LANG en_US.UTF-8 tlmgr
-

0.5.4 4

TeX Live
quarto preview

1. tlmgr info --list installed
TeX

2. Quarto

0.5.5

- **TeX Live** TeX Live
– TeX Live tug.org/texlive
– “ ”
 - **PowerShell WSL** cmd PowerShell Windows Subsystem for Linux (WSL)
tlmgr
-

0.5.6

- **Step 3** LC_ALL=en_US.UTF-8
- **Step 2**

1 cmd

```
C:\Users\asus>tlmgr update --self --all
tlmgr.pl: package repository https://mirrors.hust.edu.cn/CTAN/systems/texlive/tlnet (not ver
tlmgr.pl: saving backups to C:/texlive/2024/tlpkg/backups
tlmgr.pl: no self-updates for tlmgr available
tlmgr.pl: skipping forcibly removed package: extractbb
tlmgr.pl: skipping forcibly removed package: extractbb.windows
[ 1/764, ??:??/?:??] update: ebgaramond [8780k] (66604 -> 71069) ... done
[ 2/764, 00:16/42:39] update: ebgaramond-maths [567k] (52168 -> 74174) ... done
```