# Global high-resolution river temperature modelling

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2024-09-24

## Comments

*This is a demo manuscript. The tables are graphs are non-relevant to the project itself and are for practice only.*

## Tables

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

**Table 1.** Speeds and distances.

```
knitr::kable(head(iris))
```

| Sepal.Length | Sepal.Width | Petal.Length | Petal.Width | Species |
|---|---|---|---|---|
| 5.1 | 3.5 | 1.4 | 0.2 | setosa |
| 4.9 | 3.0 | 1.4 | 0.2 | setosa |
| 4.7 | 3.2 | 1.3 | 0.2 | setosa |
| 4.6 | 3.1 | 1.5 | 0.2 | setosa |
| 5.0 | 3.6 | 1.4 | 0.2 | setosa |
| 5.4 | 3.9 | 1.7 | 0.4 | setosa |

**Table 2.** Iris information.

```
knitr::kable(head(iris),
             align = "l",
             caption = "Iris Information")
```

Table 2: Iris Information

| Sepal.Length | Sepal.Width | Petal.Length | Petal.Width | Species |
|---|---|---|---|---|
| 5.1 | 3.5 | 1.4 | 0.2 | setosa |
| 4.9 | 3.0 | 1.4 | 0.2 | setosa |
| 4.7 | 3.2 | 1.3 | 0.2 | setosa |
| 4.6 | 3.1 | 1.5 | 0.2 | setosa |
| 5.0 | 3.6 | 1.4 | 0.2 | setosa |
| 5.4 | 3.9 | 1.7 | 0.4 | setosa |

**Table 3.** Iris information with caption and cell alignment settings.

## Plots

```
plot(pressure,
     pch = 19,
     col = "blue",
     cex = 2,
     xlab = "Temperature",
     ylab = "Pressure")
```

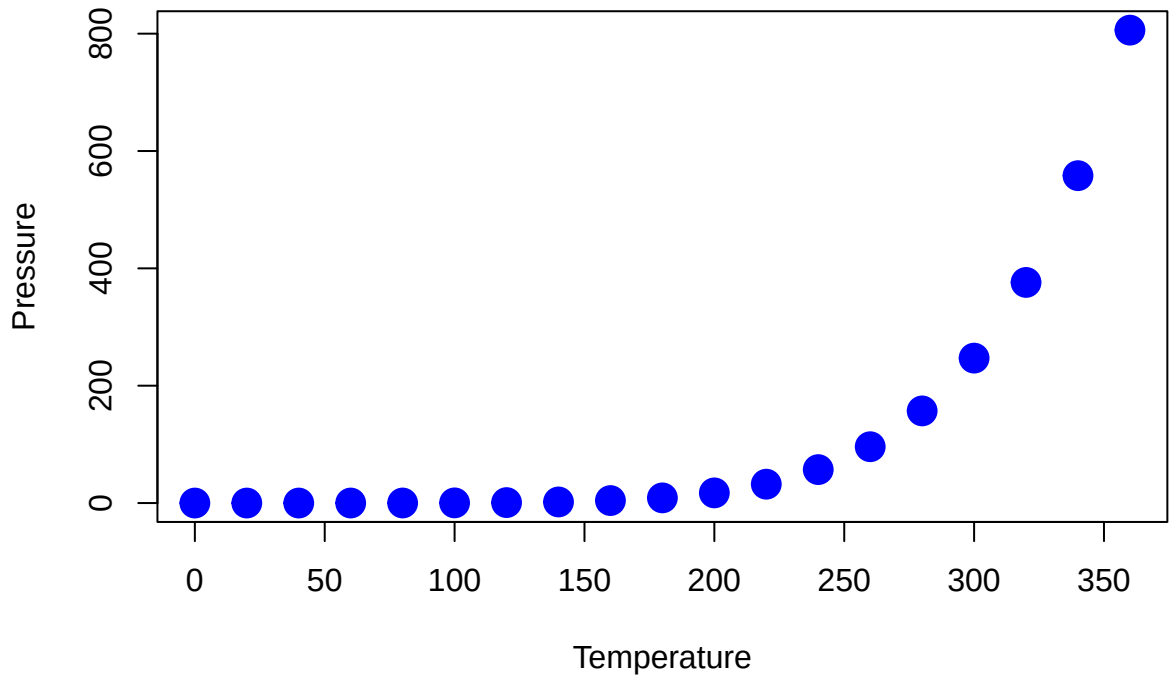


**Fig 1.** Pressure vs. temperature plot.

## Plots from file

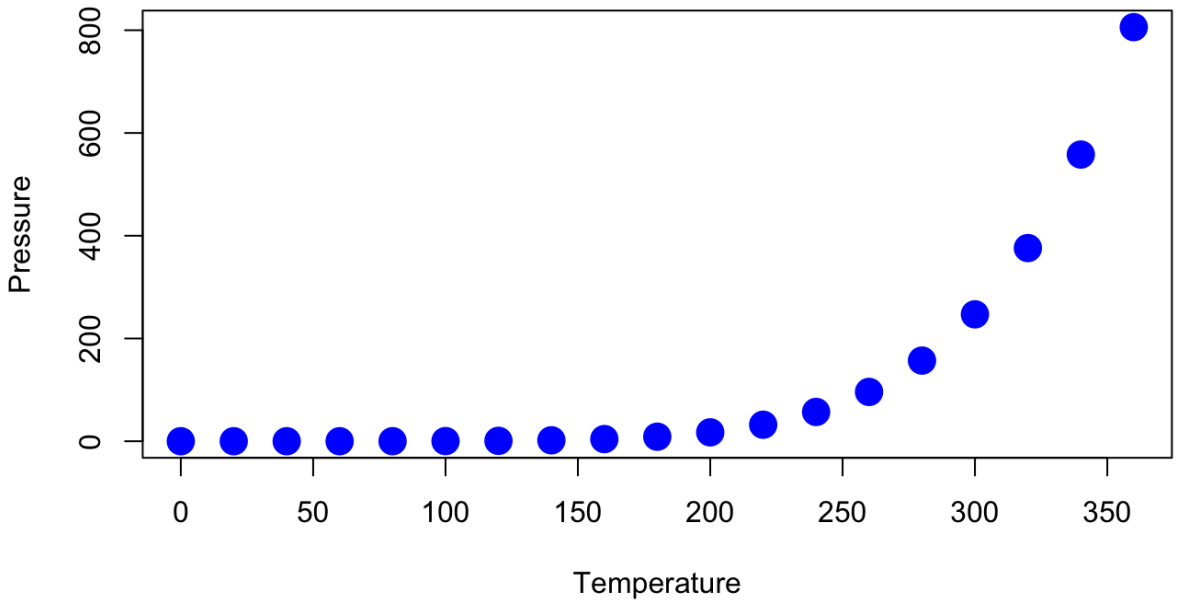


**Fig 1.** Pressure vs. temperature plot imported from folder **03_figs**.

## Equations

I can have in-line equation $alpha = beta$ Or start at a new line

$$alpha = beta$$

## References

This is a citation in brackets (Vliet *et al.* 2013)

Vliet *et al.* (2013) is a citation in a sentence.

## I want my references here:


Allaire, J., Xie, Y., Dervieux, C., McPherson, J., Luraschi, J., Ushey, K., *et al.* (2024a). *rmarkdown: Dynamic documents for r.*

Allaire, J., Xie, Y., Dervieux, C., R Foundation, Wickham, H., Journal of Statistical Software, *et al.* (2024b). *rticles: Article formats for r markdown.*

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Horst, A.M., Hill, A.P. & Gorman, K.B. (2020). *palmerpenguins: Palmer archipelago (antarctica) penguin data.*

R Core Team. (2024). *R: A language and environment for statistical computing.* R Foundation for Statistical Computing, Vienna, Austria.

Vliet, M.T.H. van, Franssen, W.H.P., Yearsley, J.R., Ludwig, F., Haddeland, I., Lettenmaier, D.P., *et al.* (2013). Global river discharge and water temperature under climate change. *Global Environmental Change*, 23, 450464.
Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L.D., François, R., *et al.* (2019). Welcome to the tidyverse. *Journal of Open Source Software*, 4, 1686.
Xie, Y. (2014). knitr: A comprehensive tool for reproducible research in R. In: *Implementing reproducible computational research* (eds. Stodden, V., Leisch, F. & Peng, R.D.). Chapman; Hall/CRC.
Xie, Y. (2015). *Dynamic documents with R and knitr*. 2nd edn. Chapman; Hall/CRC, Boca Raton, Florida.
Xie, Y. (2024). *knitr: A general-purpose package for dynamic report generation in r*.
Xie, Y., Allaire, J.J. & Grolemund, G. (2018). *R markdown: The definitive guide*. Chapman; Hall/CRC, Boca Raton, Florida.
Xie, Y., Dervieux, C. & Riederer, E. (2020). *R markdown cookbook*. Chapman; Hall/CRC, Boca Raton, Florida.

## General

## The `grateful` package

```
grateful::cite_packages(output = "paragraph", out.dir = ".")
```

We used R version 4.4.1 (R Core Team 2024) and the following R packages: janitor v. 2.2.0 (Firke 2023), knitr v. 1.48 (Xie 2014, 2015, 2024), palmerpenguins v. 0.1.1 (Horst *et al.* 2020), prereg v. 0.6.0 (Aust & Spitzer 2022), rmarkdown v. 2.28 (Allaire *et al.* 2024a; Xie *et al.* 2018, 2020), rticles v. 0.27 (Allaire *et al.* 2024b), tidyverse v. 2.0.0 (Wickham *et al.* 2019).

## R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.