

# R Knitr Integration

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This article demonstrates compile-time evaluation of R code, with results stitched back into the Living Papers article. JSON-serialized values can also be bound to variables in the reactive runtime.

R version: **R version 4.1.3 (2022-03-10)**

## Plots

Let's make some plots.

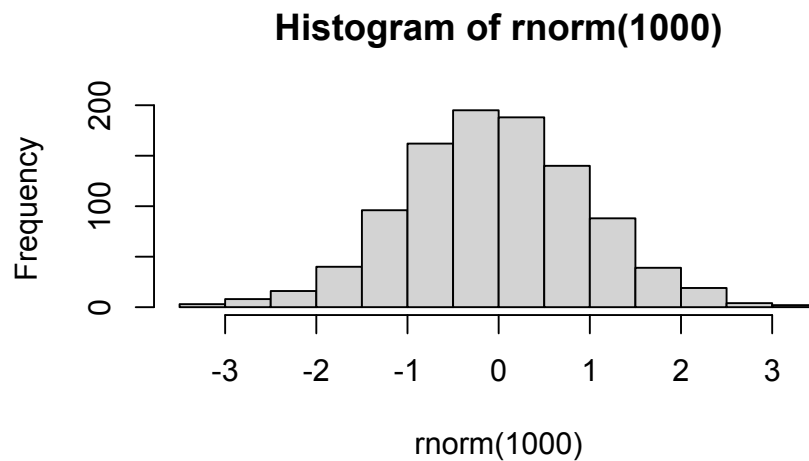


Figure 1: Histogram of random variates.

## Linear Model

Let's fit a model: `rlm(hwy ~ displ, data = mpg)`

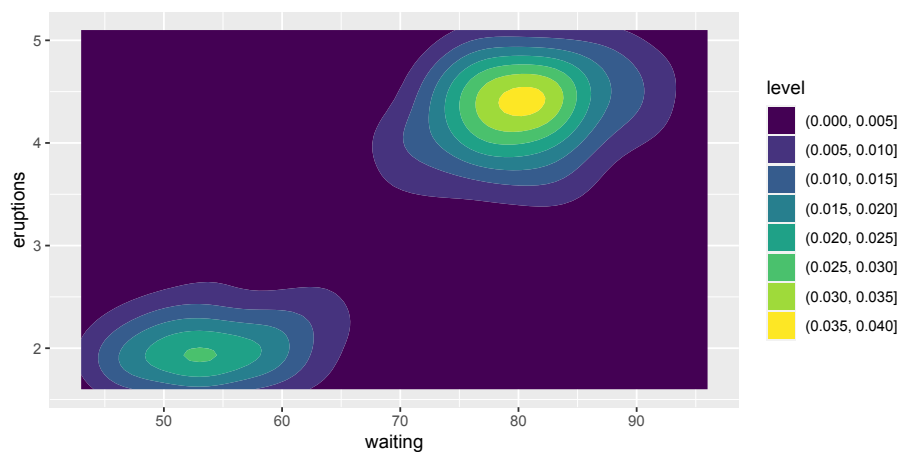


Figure 2: Density plot of Old Faithful

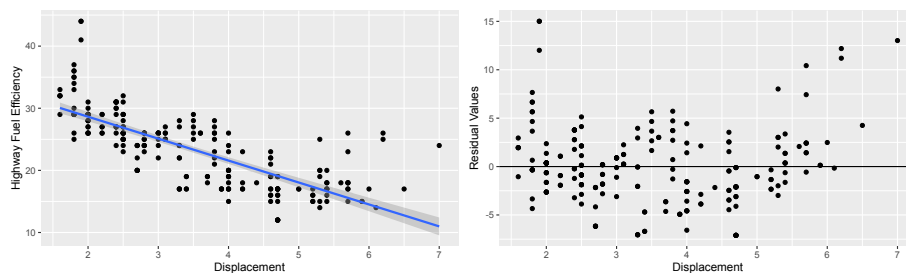


Figure 3: (Left) Displacement vs. highway efficiency. (Right) Residual plot.

Model summary:

Call:

```
lm(formula = hwy ~ displ, data = mpg)
```

Residuals:

Min	1Q	Median	3Q	Max
-7.1039	-2.1646	-0.2242	2.0589	15.0105

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	35.6977	0.7204	49.55	<2e-16 ***
displ	-3.5306	0.1945	-18.15	<2e-16 ***

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 3.836 on 232 degrees of freedom

Multiple R-squared: 0.5868, Adjusted R-squared: 0.585  
F-statistic: 329.5 on 1 and 232 DF, p-value: < 2.2e-16

The fitted line is  $y = -3.5306x + 35.6977$ .

## **Et Cetera**

The square root of 5 is *2.236068*.