

Bayesian Statistics

Here is a list of interactive applications related to the course *Bayesian Statistics course Level III/IV* .

To use these applications run *rstudio*, and set your workspace to be *Bayesian_Statistics* .

How to get the files

In order to download the applications to your computer, do the following:

1. Run rstudio
2. In the console run
 - `install.packages("rmarkdown")`
3. Go to File>New Project>Version Control>Git
4. In the section "Repository URL" type:
 - `https://github.com/georgios-stats/Bayesian_Statistics.git`

Applications

A Biostatistics example

This is just an simple Bayesian example from Biostatistics (... and Statistics I)

Execute command

```
rmarkdown::run("./demo_Biostatistics_Bayes/demo_Biostatistics_Bayes.Rmd")
```

Known distributions

Just some known distributions

Execute command

```
rmarkdown::run("./demo_distributions/demo_distributions.Rmd")
```

Central limit Theorem

A demo about the central limit theorem

Execute command

```
rmarkdown::run("./demo_CLT/demo_CLT.Rmd")
```

Weak law of large numbers

A demo about the weak law of large number

Execute command

```
rmarkdown::run("./demo_WLLN/demo_WLLN.Rmd")
```

Conjugate priors

Explore the behaviour of the posterior distribution, with respect to the hyperparameters of the prior distributions, and the number of observables.

Execute command

```
rmarkdown::run("./demo_WLLN/demo_ConjugatePriors.Rmd")
```