## Gamma inference

### MoisÃÍs Bernabeu

# Sample

## [1] "../outputs\_up/wbugs\_it10K\_th3\_n100\_un100\_s3820.RData"

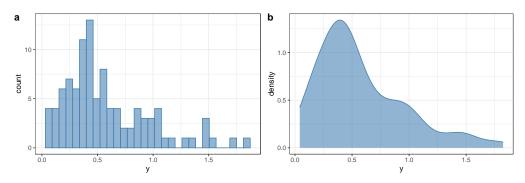


Figure 1: Histogram and density plot.

### Gibbs parameters

alpha	beta	N sample	Chains	Thinning	Iterations	Adaptation	Final iter. no
2	4	100	3	3	10000	10	3000

a, b, m, mo and v are the  $\alpha$  and  $\beta$  parameters, the mean, the mode and the variance respectively.

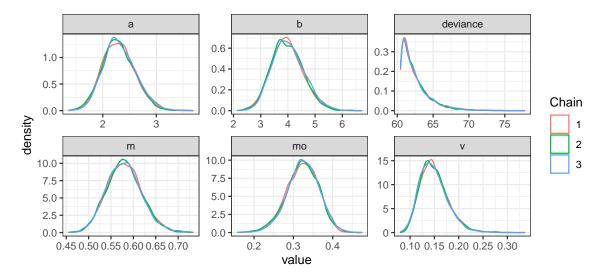


Figure 2: Posterior distributions densities for each parameter and in colors we show the chains.

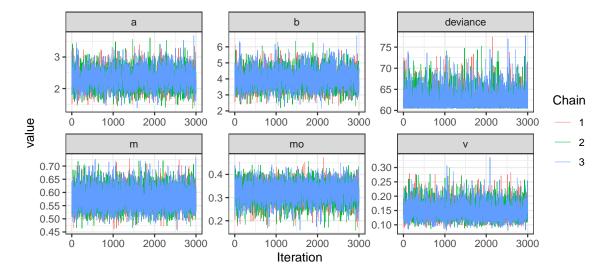


Figure 3: Traceplots for each parameter, in colors we show the chains.

Table 1: Summary statistics of the parameters posterior distributions.

	Mean	SD	R	Effective size
a	2.302	0.303	1.005	3024.488
b	3.988	0.584	1.005	2990.738
m	0.580	0.039	1.001	10014.178
v	0.149	0.029	1.004	4094.316
mo	0.324	0.041	1.002	4594.301
deviance	62.485	2.025	1.004	6140.265

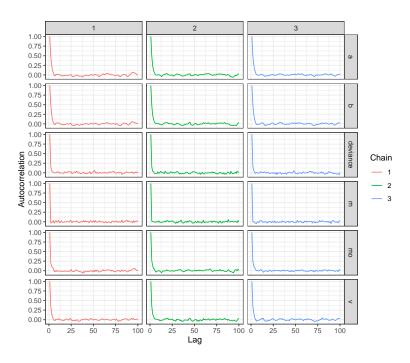


Figure 4: Autocorrelations vs lag.

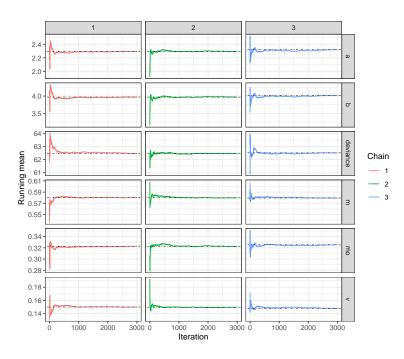


Figure 5: Estimates of the mean for each parameter and tranformations.

### ML estimation

```
## shape rate
## 2.2494757 3.8836506
## (0.2975600) (0.5752965)
```