EpiFusionUtilities Package Vignette

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# Home

Welcome to the EpiFusionUtilities wiki!

EpiFusionUtilities is a useful R package that helps in preparing parameter files for, running, and parsing the outputs of, [EpiFusion](https://github.com/ciarajudge/EpiFusion). This wiki lists the functions in the package and some usage information.

## Getting Started

To get started with EpiFusionUtilities you can install it using devtools and the install\_github command. In R, that looks like this:

# intall from Github  
devtools::install\_github("https://github.com/ciarajudge/EpiFusionUtilities")

# extract\_posterior\_epifusion

## Parse results from raw EpiFusion object into a R object with infection, Rt and parameter posteriors

### Description

This function discards the burn-in from the MCMC samples enclosed in a raw EpiFusion object. The posterior samples, and Rhat and ESS statistics for the parameters of the analysis, are stored in a list.

### Usage

extract\_posterior\_epifusion(raw\_epifusion, burn\_in)

### Arguments

raw\_epifusion | *raw EpiFusion object*

burn\_in | *proportion (as a decimal) of each chain to discard as burn in*

### Value

a list of R compatible EpiFusion output objects containing the posterior samples of the analysis with burn in samples discarded. Also provides Effective Sample Size (ESS) and Gelman Rubin convergence statistics (Rhat) for each parameter.