

# Package ‘bigsimr’

July 22, 2025

**Title** Fast Generation of High-Dimensional Random Vectors

**Version** 0.12.0

**Description** Simulate multivariate data with arbitrary marginal distributions.  
'bigsimr' is a package for simulating high-dimensional multivariate data with a target correlation and arbitrary marginal distributions via Gaussian copula. It utilizes the Julia package 'Bigsimr.jl' for its core routines.

**URL** <https://github.com/SchisslerGroup/r-bigsimr>

**BugReports** <https://github.com/SchisslerGroup/Bigsimr.jl/issues>

**Depends** R (>= 3.6.0)

**License** GPL-3

**Encoding** UTF-8

**SystemRequirements** Julia (>= 1.7), Bigsimr.jl, Distributions.jl

**RoxygenNote** 7.3.1

**Imports** JuliaCall

**Suggests** testthat (>= 3.0.0)

**Config/testthat/edition** 3

**NeedsCompilation** no

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**Repository** CRAN

**Date/Publication** 2024-02-21 08:00:06 UTC

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bigsimr_setup	<i>Setup bigsimr</i>
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**Description**

This function initializes Julia and the Bigsimr.jl package. The first time will be longer since it includes precompilation. Additionally, this will install Julia and the required packages if they are missing.

**Usage**

```
bigsimr_setup(pkg_check = TRUE, ...)
```

**Arguments**

pkg_check	logical, check for Bigsimr.jl package and install if necessary
...	Parameters are passed down to JuliaCall::julia_setup

**Value**

Return the imported wrapper of Bigsimr.jl Julia package

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distributions_setup	<i>Setup Distributions.jl</i>
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**Description**

This function initializes the Distributions package that many of the Bigsimr functions work with.

**Usage**

```
distributions_setup()
```

**Value**

Return the imported wrapper of Distributions.jl Julia package

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