

# Package: posteriordb (via r-universe)

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**Type** Package

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## Contents

|                                                    |   |
|----------------------------------------------------|---|
| alias_names . . . . .                              | 3 |
| as.data.frame.pdb_posterior . . . . .              | 3 |
| as.reference_posterior_draws.stanfit . . . . .     | 4 |
| assert_checked_reference_posterior_draws . . . . . | 5 |
| bibliography . . . . .                             | 6 |

|                                                           |    |
|-----------------------------------------------------------|----|
| check_pdb . . . . .                                       | 6  |
| check_pdb_posterior . . . . .                             | 7  |
| check_reference_posterior_draws . . . . .                 | 8  |
| check_summary_statistics_draws . . . . .                  | 9  |
| compute_reference_posterior_draws . . . . .               | 9  |
| compute_reference_posterior_draws_stan_sampling . . . . . | 10 |
| compute_reference_posterior_summary_statistic . . . . .   | 10 |
| data_file_path . . . . .                                  | 11 |
| data_info . . . . .                                       | 11 |
| data_names . . . . .                                      | 12 |
| filter_posteriors . . . . .                               | 13 |
| framework . . . . .                                       | 13 |
| get_data . . . . .                                        | 14 |
| github_pat . . . . .                                      | 15 |
| handle_aliases . . . . .                                  | 15 |
| info . . . . .                                            | 15 |
| info<- . . . . .                                          | 16 |
| model_code . . . . .                                      | 16 |
| model_names . . . . .                                     | 17 |
| pdb_aliases . . . . .                                     | 18 |
| pdb_assert_file_exist . . . . .                           | 18 |
| pdb_cache_path . . . . .                                  | 19 |
| pdb_cache_rm . . . . .                                    | 19 |
| pdb_cached_local_file_path . . . . .                      | 20 |
| pdb_compare_stan_models . . . . .                         | 20 |
| pdb_file_copy . . . . .                                   | 21 |
| pdb_local . . . . .                                       | 21 |
| pdb_stan_sampling_versions . . . . .                      | 23 |
| pdb_version . . . . .                                     | 23 |
| pdb<- . . . . .                                           | 24 |
| posterior . . . . .                                       | 24 |
| posterior_dimension_names . . . . .                       | 25 |
| posterior_names . . . . .                                 | 25 |
| posteriors_tbl_df . . . . .                               | 26 |
| read_json_from_pdb . . . . .                              | 26 |
| reference_posterior_draws_file_path . . . . .             | 27 |
| reference_posterior_info . . . . .                        | 27 |
| reference_posterior_names . . . . .                       | 28 |
| reference_posterior_summary_statistic . . . . .           | 29 |
| remove_pdb . . . . .                                      | 30 |
| rename_pdb . . . . .                                      | 31 |
| run_stan . . . . .                                        | 31 |
| subset.pdb_reference_posterior_draws . . . . .            | 32 |
| summary_statistic_type . . . . .                          | 32 |
| thin_draws.pdb_reference_posterior_draws . . . . .        | 33 |
| write_pdb . . . . .                                       | 33 |

---

|             |                                                               |
|-------------|---------------------------------------------------------------|
| alias_names | <i>Get all existing alias names from a posterior database</i> |
|-------------|---------------------------------------------------------------|

---

**Description**

Get all existing alias names from a posterior database

**Usage**

```
alias_names(type, pdb = pdb_default())
```

**Arguments**

|      |                                                 |
|------|-------------------------------------------------|
| type | type of alias names. Cureently only posteriors. |
| pdb  | a pdb object.                                   |

---

|                             |                                                 |
|-----------------------------|-------------------------------------------------|
| as.data.frame.pdb_posterior | <i>Coerce a [pdb_posterior] to a Data Frame</i> |
|-----------------------------|-------------------------------------------------|

---

**Description**

Coerce a [pdb\_posterior] to a Data Frame

**Usage**

```
## S3 method for class 'pdb_posterior'
as.data.frame(x, row.names = NULL, optional = FALSE, ...)

## S3 method for class 'pdb_posteriors'
as.data.frame(x, row.names = NULL, optional = FALSE, ...)
```

**Arguments**

|           |                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------|
| x         | a [pdb_posterior] object.                                                                           |
| row.names | NULL or a character vector giving the row names for the data frame. Missing values are not allowed. |
| optional  | Not used.                                                                                           |
| ...       | further arguments to as.data.frame for a list.                                                      |

**Details**

The dataframe will consist of one row per keyword.

---

`as.reference_posterior_draws.stanfit`*Reference Posterior draws and summary statistics*

---

## Description

Reference Posterior draws and summary statistics

## Usage

```
## S3 method for class 'stanfit'
as.reference_posterior_draws(x, info, pdb = pdb_default(), ...)

reference_posterior_draws(x, ...)

as.reference_posterior_draws(x, ...)

pdb_reference_posterior_draws(x, ...)

as.pdb_reference_posterior_draws(x, ...)

## S3 method for class 'character'
reference_posterior_draws(x, pdb = pdb_default(), ...)

## S3 method for class 'pdb_posterior'
reference_posterior_draws(x, ...)

## S3 method for class 'pdb_reference_posterior_info'
reference_posterior_draws(x, pdb = pdb_default(), ...)

## S3 method for class 'draws_list'
as.reference_posterior_draws(x, info, ...)

assert_reference_posterior_draws(x)
```

## Arguments

|                   |                                                 |
|-------------------|-------------------------------------------------|
| <code>x</code>    | a [posterior] object or a posterior name.       |
| <code>info</code> | a [pdb_reference_posterior_info] object         |
| <code>pdb</code>  | a [pdb] object (if [x] is a posterior name)     |
| <code>...</code>  | further arguments supplied to specific methods. |

## Value

a [pdb\_reference\_posterior] object.

---

`assert_checked_reference_posterior_draws`*Assert that all checks of the reference posterior draws are true*

---

## Description

Assert that all checks of the reference posterior draws are true

## Usage

```
assert_checked_reference_posterior_draws(x)

## S3 method for class 'pdb_reference_posterior_draws'
assert_checked_reference_posterior_draws(x)

## S3 method for class 'pdb_reference_posterior_info'
assert_checked_reference_posterior_draws(x)

assert_checked_summary_statistics_draws(x)

## S3 method for class 'pdb_reference_posterior_draws'
assert_checked_summary_statistics_draws(x)

## S3 method for class 'pdb_reference_posterior_summary_statistic'
assert_checked_summary_statistics_draws(x)

## S3 method for class 'pdb_reference_posterior_info'
assert_checked_summary_statistics_draws(x)
```

## Arguments

x                      a [pdb\_reference\_posterior\_draws] object

## Details

This function asserts that the reference posterior draws comply with the criterias of the reference posterior draws.

See [https://github.com/stan-dev/posteriordb/blob/master/doc/REFERENCE\\_POSTERIOR\\_DEFINITION.md](https://github.com/stan-dev/posteriordb/blob/master/doc/REFERENCE_POSTERIOR_DEFINITION.md) for details.

---

|              |                                                     |
|--------------|-----------------------------------------------------|
| bibliography | <i>Get the bibliography of a posterior database</i> |
|--------------|-----------------------------------------------------|

---

**Description**

Get the bibliography of a posterior database

**Usage**

```
bibliography(pdb, ...)
```

```
pdb_bibliography(pdb, ...)
```

**Arguments**

|     |                                                |
|-----|------------------------------------------------|
| pdb | a posterior database connection                |
| ... | further arguments passed to [bibtex::read.bib] |

---

|           |                                               |
|-----------|-----------------------------------------------|
| check_pdb | <i>Check the content a posterior database</i> |
|-----------|-----------------------------------------------|

---

**Description**

Check the content a posterior database

**Usage**

```
check_pdb(
  pdb,
  posterior_names_to_check = NULL,
  run_stan_code_checks = FALSE,
  verbose = TRUE
)

check_pdb_read_model_code(posterior_list)

check_pdb_aliases(pdb)

check_pdb_read_data(posterior_list)

check_pdb_read_reference_posterior_draws(posterior_list)

check_pdb_posterior_run_stan(po)

check_pdb_references(pdb)
```

```

check_pdb_posterior_references(posterior_list)

check_pdb_all_models_have_posterior(pdb)

check_pdb_all_data_have_posterior(pdb)

check_pdb_all_reference_posteriors_have_posterior(pdb)

```

### Arguments

**pdb** a pdb object  
**posterior\_names\_to\_check** an vector indicating what posteriors to check in the pdb. Default is NULL (all).  
**run\_stan\_code\_checks** should checks using Stan be run?  
**verbose** should check results be printed?  
**posterior\_list** a list of pdb\_posterior objects.  
**po** a pdb\_posterior object.

### Details

[check\_pdb()] checks that the content exists as specified [check\_pdb\_run\_stan()] test to run all posteriors with stan models. [check\_pdb\_stan\_syntax()] check that all stan model code files can be parsed. [check\_pdb\_aliases()] check that all alias are correct. [check\_pdb\_read\_model\_code()] check that posteriors can be read. [check\_pdb\_posteriors()] check a vector of posterior names. [check\_pdb\_references()] check that all references in posteriors also exist in bibtex. [check\_pdb\_all\_models\_have\_posterior()] check that all models belong to a posterior [check\_pdb\_all\_data\_have\_posterior()] check that all datasets belong to a posterior [check\_pdb\_all\_reference\_posteriors\_have\_posterior()] check that all reference posteriors belong to a posterior

### Value

a boolean indicating if the pdb works as it should.

---

|                     |                         |
|---------------------|-------------------------|
| check_pdb_posterior | <i>Test a posterior</i> |
|---------------------|-------------------------|

---

### Description

Test a posterior

### Usage

```
check_pdb_posterior(po, run_stan_code_checks = TRUE, verbose = TRUE)
```

**Arguments**

po                    a [pdb\_posterior] to check.

run\_stan\_code\_checks            should checks using Stan be run?

verbose              should check results be printed?

**Details**

The function checks that a posterior is consistent.

---

check\_reference\_posterior\_draws

*Check that reference posterior draws follows the reference posterior draws definition.*

---

**Description**

Check that reference posterior draws follows the reference posterior draws definition.

**Usage**

```
check_reference_posterior_draws(x, ...)

## S3 method for class 'character'
check_reference_posterior_draws(x, ...)

## S3 method for class 'pdb_posterior'
check_reference_posterior_draws(x, ...)

## S3 method for class 'pdb_reference_posterior_draws'
check_reference_posterior_draws(x, ...)
```

**Arguments**

x                    a posterior name, posterior object or reference\_posterior\_draws object

...                  currently not used.

---

```
check_summary_statistics_draws
```

*Check that reference posterior draws follows the reference posterior summary definition.*

---

## Description

Check that reference posterior draws follows the reference posterior summary definition.

## Usage

```
check_summary_statistics_draws(x, ...)

## S3 method for class 'character'
check_summary_statistics_draws(x, ...)

## S3 method for class 'pdb_posterior'
check_summary_statistics_draws(x, ...)

## S3 method for class 'pdb_reference_posterior_draws'
check_summary_statistics_draws(x, ...)
```

## Arguments

|     |                                                                        |
|-----|------------------------------------------------------------------------|
| x   | a posterior name, posterior object or reference_posterior_draws object |
| ... | currently not used.                                                    |

---

```
compute_reference_posterior_draws
```

*Compute a Reference Posteriors for a reference posterior info object*

---

## Description

Compute a Reference Posteriors for a reference posterior info object

## Usage

```
compute_reference_posterior_draws(rpi, pdb = pdb_default())
```

## Arguments

|     |                                      |
|-----|--------------------------------------|
| rpi | a [reference_posterior_info] object. |
| pdb | a [pdb] object.                      |

---

```
compute_reference_posterior_draws_stan_sampling
```

*Compute a Reference Posteriors using Rstan*

---

**Description**

Compute a Reference Posteriors using Rstan

**Usage**

```
compute_reference_posterior_draws_stan_sampling(rpi, pdb)
```

**Arguments**

`rpi`            a [reference\_posterior\_info] object.  
`pdb`            a [pdb] object.

---

```
compute_reference_posterior_summary_statistic
```

*Compute Summary statistics from a reference posterior*

---

**Description**

Compute Summary statistics from a reference posterior

**Usage**

```
compute_reference_posterior_summary_statistic(rpd, summary_statistic = "mean")  
  
compute_summary_statistic(rpd, summary_statistic = "mean")
```

**Arguments**

`rpd`            a [reference\_posterior\_summary\_statistic] object  
`summary_statistic`  
                summary statistic to compute

---

|                |                                   |
|----------------|-----------------------------------|
| data_file_path | <i>Extract data for posterior</i> |
|----------------|-----------------------------------|

---

**Description**

Extract data for posterior

**Usage**

```
data_file_path(x, ...)
stan_data_file_path(x, ...)
stan_data(x)
```

**Arguments**

|     |                                        |
|-----|----------------------------------------|
| x   | an object to access file path to.      |
| ... | further arguments supplied to methods. |

---

|           |                                          |
|-----------|------------------------------------------|
| data_info | <i>Access data and model information</i> |
|-----------|------------------------------------------|

---

**Description**

Access data and model information

**Usage**

```
data_info(x, ...)
as.data_info(x, ...)

## S3 method for class 'pdb_posterior'
data_info(x, ...)

## S3 method for class 'character'
data_info(x, pdb = pdb_default(), ...)

## S3 method for class 'list'
as.data_info(x, pdb = NULL, ...)

pdb_data_info(x, ...)
as.pdb_data_info(x, ...)
```

```

model_info(x, ...)

as.model_info(x, ...)

pdb_model_info(x, ...)

as.pdb_model_info(x, ...)

## S3 method for class 'pdb_posterior'
model_info(x, ...)

## S3 method for class 'character'
model_info(x, pdb = pdb_default(), ...)

## S3 method for class 'list'
as.model_info(x, pdb = NULL, ...)

```

### Arguments

|     |                                     |
|-----|-------------------------------------|
| x   | a object to access information for. |
| ... | further arguments to methods.       |
| pdb | a pdb object.                       |

---

|            |                                                              |
|------------|--------------------------------------------------------------|
| data_names | <i>Get all existing data names from a posterior database</i> |
|------------|--------------------------------------------------------------|

---

### Description

Get all existing data names from a posterior database

### Usage

```

data_names(pdb = pdb_default(), ...)

## S3 method for class 'pdb_local'
data_names(pdb = pdb_default(), ...)

## S3 method for class 'pdb_github'
data_names(pdb, ...)

## S3 method for class 'pdb_github'
model_names(pdb, ...)

## S3 method for class 'pdb_github'
reference_posterior_names(pdb, ...)

```

**Arguments**

`pdb`                    a `pdb` object.  
`...`                    Further argument to methods.

---

|                                |                                      |
|--------------------------------|--------------------------------------|
| <code>filter_posteriors</code> | <i>Filter Posteriors in Database</i> |
|--------------------------------|--------------------------------------|

---

**Description**

Filter Posteriors in Database

**Usage**

```
filter_posteriors(pdb = pdb_default(), ...)
```

**Arguments**

`pdb`                    a `pdb` object.  
`...`                    further arguments to supply to `dplyr::filter()`

**Details**

Filter posteriors in the database and return list of posteriors/models/data to work with as a list.

The function is built upon the `dplyr` filter function and follows the exact same syntax. All elements in the ‘posteriors/[posterior\_name].json’, ‘models/info/[model\_name].json’ and ‘data/info/[data\_name].json’ can be used to filter the posterior database. See examples below.

---

|                        |                                                        |
|------------------------|--------------------------------------------------------|
| <code>framework</code> | <i>Identify the framework for a given [model_code]</i> |
|------------------------|--------------------------------------------------------|

---

**Description**

Identify the framework for a given [model\_code]

**Usage**

```

framework(x)

## S3 method for class 'pdb_model_code'
framework(x)

framework(x) <- value

## S3 replacement method for class 'character'
```

```
framework(x) <- value

## S3 replacement method for class 'pdb_model_code'
framework(x) <- value
```

### Arguments

`x` a [pdb\_model\_code] object.  
`value` a supported framework.

---

get\_data

*Posterior Data Sets*

---

### Description

Posterior Data Sets

### Usage

```
get_data(x, ...)

as.pdb_data(x, ...)

## S3 method for class 'pdb_posterior'
get_data(x, ...)

## S3 method for class 'character'
get_data(x, pdb = pdb_default(), ...)

## S3 method for class 'pdb_data_info'
get_data(x, pdb = pdb_default(), ...)

## S3 method for class 'list'
as.pdb_data(x, info, ...)

pdb_data(x, ...)
```

### Arguments

`x` an object to access data from.  
`...` Currently not used.  
`pdb` a pdb object.  
`info` a pdb\_data\_info object.

---

|            |                                               |
|------------|-----------------------------------------------|
| github_pat | <i>Retrieve Github personal access token.</i> |
|------------|-----------------------------------------------|

---

**Description**

A github personal access token Looks in env var ‘GITHUB\_PAT‘

**Usage**

```
github_pat(pdb = NULL)
```

**Arguments**

|     |                                                   |
|-----|---------------------------------------------------|
| pdb | A posterior datasbase object to extract pat from. |
|-----|---------------------------------------------------|

---

|                |                                                 |
|----------------|-------------------------------------------------|
| handle_aliases | <i>Return the name that the alias points to</i> |
|----------------|-------------------------------------------------|

---

**Description**

Return the name that the alias points to

**Usage**

```
handle_aliases(x, type, pdb)
```

**Arguments**

|      |                                                 |
|------|-------------------------------------------------|
| x    | a name to lookup in alias list                  |
| type | type of alias names. Cureently only posteriors. |
| pdb  | a pdb object.                                   |

---

|      |                                              |
|------|----------------------------------------------|
| info | <i>Extract information from a pdb object</i> |
|------|----------------------------------------------|

---

**Description**

Extract information from a pdb object

**Usage**

```
info(x)
```

**Arguments**

|      |                                                              |
|------|--------------------------------------------------------------|
| x    | a [pdb_data], [pdb_model_code] and [pdb_reference_posterior] |
| info | a [pdb_]                                                     |

---

|        |                                        |
|--------|----------------------------------------|
| info<- | <i>Set information to a pdb object</i> |
|--------|----------------------------------------|

---

**Description**

Set information to a pdb object

**Usage**

```
info(x) <- value
```

**Arguments**

|       |                                                              |
|-------|--------------------------------------------------------------|
| x     | a [pdb_data], [pdb_model_code] and [pdb_reference_posterior] |
| value | an info object                                               |

---

|            |                                                 |
|------------|-------------------------------------------------|
| model_code | <i>Extract and construct model code objects</i> |
|------------|-------------------------------------------------|

---

**Description**

Extract and construct model code objects

**Usage**

```
model_code(x, ...)

as.model_code(x, info, ...)

## S3 method for class 'pdb_posterior'
model_code(x, framework, ...)

## S3 method for class 'character'
model_code(x, framework, pdb = pdb_default(), ...)

## S3 method for class 'pdb_model_info'
model_code(x, framework, pdb = pdb_default(), ...)

## S3 method for class 'stanmodel'
as.model_code(x, info, ...)

## S3 method for class 'character'
as.model_code(x, info, framework, ...)

pdb_model_code(x, ...)
```

```

as.pdb_model_code(x, info, ...)

model_code_file_path(x, ...)

## S3 method for class 'pdb_posterior'
model_code_file_path(x, framework, ...)

## S3 method for class 'pdb_model_info'
model_code_file_path(x, framework, pdb = pdb_default(), ...)

## S3 method for class 'character'
model_code_file_path(x, framework, pdb = pdb_default(), ...)

stan_code_file_path(x)

stan_code(x, ...)

as.stan_code(x, info, ...)

pdb_stan_code(x, ...)

```

### Arguments

|           |                                                 |
|-----------|-------------------------------------------------|
| x         | an object to access file path to.               |
| ...       | further arguments supplied to methods.          |
| info      | a <code>pdb_model_info</code> object.           |
| framework | model code framework (e.g. <code>stan</code> ). |
| pdb       | a <code>pdb</code> object.                      |

### See Also

`framework()`

---

|             |                                                               |
|-------------|---------------------------------------------------------------|
| model_names | <i>Get all existing model names from a posterior database</i> |
|-------------|---------------------------------------------------------------|

---

### Description

Get all existing model names from a posterior database

### Usage

```

model_names(pdb = pdb_default(), ...)

## S3 method for class 'pdb_local'
model_names(pdb = pdb_default(), ...)

```

## Arguments

|     |                              |
|-----|------------------------------|
| pdb | a pdb object.                |
| ... | Further argument to methods. |

pdb\_aliases      *Extract aliases list from posterior database*

### Description

Extract aliases list from posterior database

## Usage

```
pdb_aliases(type, pdb)
```

## Arguments

|      |                                                 |
|------|-------------------------------------------------|
| type | type of alias names. Cureently only posteriors. |
| pdb  | a pdb object.                                   |

`pdb_assert_file_exist` *Assert that a file exists*

### Description

## Assert that a file exists

## Usage

```
pdb_assert_file_exist(pdb, path, ...)
```

```
## S3 method for class 'pdb_local'
pdb_assert_file_exist(pdb, path, ...)
```

## Arguments

|      |                                        |
|------|----------------------------------------|
| pdb  | a pdb object.                          |
| path | a pdb path.                            |
| ...  | further arguments supplied to methods. |

---

|                |                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------|
| pdb_cache_path | <i>Returns a writable cache path for a pdb and a path It will create the directory if it does not exist.</i> |
|----------------|--------------------------------------------------------------------------------------------------------------|

---

## Description

Returns a writable cache path for a pdb and a path It will create the directory if it does not exist.

## Usage

```
pdb_cache_path(pdb, path)
```

## Arguments

|      |               |
|------|---------------|
| pdb  | a pdb object. |
| path | a pdb path.   |

---

|              |                                 |
|--------------|---------------------------------|
| pdb_cache_rm | <i>Remove object from cache</i> |
|--------------|---------------------------------|

---

## Description

Remove object from cache

## Usage

```
pdb_cache_rm(x, ...)
```

```
## S3 method for class 'pdb_reference_posterior_draws'
```

```
pdb_cache_rm(x, ...)
```

```
## S3 method for class 'pdb_data'
```

```
pdb_cache_rm(x, ...)
```

## Arguments

|     |                                |
|-----|--------------------------------|
| x   | an object to remove from cache |
| ... | Currently not in use.          |

---

`pdb_cached_local_file_path`  
*Read json file from path*

---

**Description**

Read json file from path

**Usage**

```
pdb_cached_local_file_path(pdb, path, unzip = FALSE)
```

**Arguments**

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| <code>pdb</code>   | a pdb to read from.                                      |
| <code>path</code>  | a path to read from.                                     |
| <code>unzip</code> | if true, path is zipped and should be unzipped to cache. |

**Details**

Copies the file to the cache and return path

---

`pdb_compare_stan_models`  
*Compare two stan models for the same data*

---

**Description**

Compare two stan models for the same data

**Usage**

```
pdb_compare_stan_models(po, new_stan_model_code_file, upar_values = NULL)
```

**Arguments**

|                                       |                                                                                                                   |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <code>po</code>                       | a 'pdb_posterior' object                                                                                          |
| <code>new_stan_model_code_file</code> | a file path to another stan code to compare with                                                                  |
| <code>upar_values</code>              | a list of values on the constrained space to use for comparisons. Defaults to 100 samples from a standard normal. |

---

|               |                                               |
|---------------|-----------------------------------------------|
| pdb_file_copy | <i>Copy a file from a pdb to a local path</i> |
|---------------|-----------------------------------------------|

---

**Description**

Copy a file from a pdb to a local path

**Usage**

```

pdb_file_copy(pdb, from, to, overwrite = FALSE, ...)

## S3 method for class 'pdb_local'
pdb_file_copy(pdb, from, to, overwrite = FALSE, ...)

## S3 method for class 'pdb_github'
pdb_file_copy(pdb, from, to, overwrite = FALSE, ...)

```

**Arguments**

|           |                                      |
|-----------|--------------------------------------|
| pdb       | a pdb connection.                    |
| from      | a path in the pdb                    |
| to        | a local file path                    |
| overwrite | overwrite local file.                |
| ...       | further argument supplied to methods |

**Value**

a boolean indicator as file.copy indicating success.

---

|           |                                                     |
|-----------|-----------------------------------------------------|
| pdb_local | <i>Create a Posterior Database (pdb) connection</i> |
|-----------|-----------------------------------------------------|

---

**Description**

Create a Posterior Database (pdb) connection

**Usage**

```

pdb_local(
  path = getOption("pdb_path", Sys.getenv("PDB_PATH")),
  cache_path = tempdir()
)

pdb(x, ...)

```

```

## Default S3 method:
pdb(x, ...)

## S3 method for class 'pdb_model_code'
pdb(x, ...)

## S3 method for class 'character'
pdb(x, pdb_type = "local", cache_path = tempdir(), ...)

pdb_default(cache_path = tempdir())

pdb_config(directory = getwd())

pdb_github(
  repo = getOption("pdb_repo", "stan-dev/posteriorfdb"),
  cache_path = tempdir(),
  ref = "master",
  subdir = NULL,
  auth_token = github_pat(),
  host = "https://api.github.com"
)

```

## Arguments

|            |                                                                                                                                                                                                                                                                                             |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| path       | a local path to a posterior database. Defaults to 'pdb_path' option or PDB_PATH environment variable.                                                                                                                                                                                       |
| cache_path | The path to the pdb cache. Default is R temporary directory. This is used to store files locally and without affecting the database.                                                                                                                                                        |
| x          | an object to access a pdb for, if character this is how to identify the pdb (path for local pdb, repo for github pdb)                                                                                                                                                                       |
| ...        | further arguments for specific methods to setup a pdb.                                                                                                                                                                                                                                      |
| pdb_type   | Type of posterior database connection. Either local or github.                                                                                                                                                                                                                              |
| directory  | the directory to look for the [.pdb_config.yml] file                                                                                                                                                                                                                                        |
| repo       | Repository address in the format 'username/repo[/subdir][@ref#pull]'. Alternatively, you can specify 'subdir' and/or 'ref' using the respective parameters (see below); if both is specified, the values in 'repo' take precedence.                                                         |
| ref        | Desired git reference. Could be a commit, tag, or branch name. Defaults to "master".                                                                                                                                                                                                        |
| subdir     | subdirectory within repo that contains the posterior database.                                                                                                                                                                                                                              |
| auth_token | To use a private repo, generate a personal access token (PAT) in "https://github.com/settings/tokens" and supply to this argument. This is safer than using a password because you can easily delete a PAT without affecting any others. Defaults to the 'GITHUB_PAT' environment variable. |
| host       | GitHub API host to use. Override with your GitHub enterprise hostname, for example, "github.hostname.com/api/v3".                                                                                                                                                                           |

**Details**

Connect to a posterior database locally or in a github repo.

[pdb\_config()] read [.pdb\_config.yml] in [directory] and use that to setup a pdb connection.

The connection [pdb\_default()] first checks if there exists a [.pdb\_config.yml] file in the working directory. If it exist, [pdb\_config()] is used to setup, the connection. If no [.pdb\_config.yml] file is found, [pdb\_local()] is used to setup a pdb. If no local pdb is found, [pdb\_github()] is used.

**Value**

a pdb object

---

pdb\_stan\_sampling\_versions  
*Extract relevant stan versions*

---

**Description**

Extract relevant stan versions

**Usage**

pdb\_stan\_sampling\_versions()

---

pdb\_version                      *Get version of the pdb*

---

**Description**

Get version of the pdb

**Usage**

```
pdb_version(pdb, ...)
```

```
## S3 method for class 'pdb_local'
```

```
pdb_version(pdb, ...)
```

```
## S3 method for class 'pdb_github'
```

```
pdb_version(pdb, ...)
```

**Arguments**

pdb                      a pdb object to return version for.

...                      Further argument to methods.

**Value**

the git sha for the posterior database.

---

|       |                     |
|-------|---------------------|
| pdb<- | <i>Set pdb slot</i> |
|-------|---------------------|

---

**Description**

Set pdb slot

**Usage**

```
pdb(x) <- value
```

**Arguments**

|       |                                                              |
|-------|--------------------------------------------------------------|
| x     | a [pdb_data], [pdb_model_code] and [pdb_reference_posterior] |
| value | a pdb object                                                 |

---

|           |                                                     |
|-----------|-----------------------------------------------------|
| posterior | <i>Access a posterior in the posterior database</i> |
|-----------|-----------------------------------------------------|

---

**Description**

Access a posterior in the posterior database

**Usage**

```
posterior(x, pdb = pdb_default(), ...)

as.posterior(x, pdb = pdb_default(), ...)

## S3 method for class 'character'
posterior(x, pdb = pdb_default(), ...)

## S3 method for class 'list'
as.posterior(x, pdb = pdb_default(), ...)

pdb_posterior(x, pdb = pdb_default(), ...)

as.pdb_posterior(x, pdb = pdb_default(), ...)
```

**Arguments**

|     |                                                                                                       |
|-----|-------------------------------------------------------------------------------------------------------|
| x   | a posterior name that exist in the posterior database or a list used to construct a posterior object. |
| pdb | a pdb posterior database object.                                                                      |
| ... | currently not in use.                                                                                 |

**Details**

To setup a posterior object from a list, a minimum of a ‘pdb\_model’, ‘pdb\_data’, and a ‘dimension’ element need to be included. See ‘posterior("eight\_schools")\$dimensions’ for an example.

---

posterior\_dimension\_names

*Construct dimension names from a posterior dimension list*

---

**Description**

Construct dimension names from a posterior dimension list

**Usage**

```
posterior_dimension_names(x)
```

**Arguments**

|   |                                          |
|---|------------------------------------------|
| x | a dimensions slot from a [pdb_posterior] |
|---|------------------------------------------|

---

posterior\_names

*Get all existing posterior names from a posterior database or posterior objects.*

---

**Description**

Get all existing posterior names from a posterior database or posterior objects.

**Usage**

```
posterior_names(x = pdb_default(), ...)
```

```
posterior_name(x = pdb_default(), ...)
```

**Arguments**

|     |                                                                                   |
|-----|-----------------------------------------------------------------------------------|
| x   | a pdb, pdb_model_code, pdb_data, posterior object or a list of posterior objects. |
| ... | further arguments supplied to specific methods (not in use)                       |

**Details**

If a `pdb_model_code` or a `pdb_data` object is supplied, the function returns the name of all posteriors that uses the data or the model.

---

|                                |                                          |
|--------------------------------|------------------------------------------|
| <code>posteriors_tbl_df</code> | <i>Create Posterior Database tibbles</i> |
|--------------------------------|------------------------------------------|

---

**Description**

Create Posterior Database tibbles

**Usage**

```
posteriors_tbl_df(pdb = pdb_default(), ...)
```

**Arguments**

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| <code>pdb</code> | a <code>pdb</code> object.                                  |
| <code>...</code> | further arguments to supply to <code>dplyr::filter()</code> |

**Details**

Generates a tibble data frame of all posteriors in the database and their side information

---

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| <code>read_json_from_pdb</code> | <i>Read JSON objects from the posterior database</i> |
|---------------------------------|------------------------------------------------------|

---

**Description**

Read JSON objects from the posterior database

**Usage**

```
read_json_from_pdb(fn, path, pdb, ...)
```

**Arguments**

|                   |                                                                      |
|-------------------|----------------------------------------------------------------------|
| <code>fn</code>   | file name                                                            |
| <code>path</code> | path to file name in <code>pdb</code>                                |
| <code>pdb</code>  | a [ <code>pdb</code> ] object                                        |
| <code>...</code>  | further arguments supplied to [ <code>jsonlite::read_json()</code> ] |

---

```
reference_posterior_draws_file_path
    Extract data for posterior
```

---

**Description**

Extract data for posterior

**Usage**

```
reference_posterior_draws_file_path(x, ...)

## S3 method for class 'pdb_posterior'
reference_posterior_draws_file_path(x, ...)

## S3 method for class 'character'
reference_posterior_draws_file_path(x, pdb = pdb_default(), ...)

## S3 method for class 'pdb_reference_posterior_info'
reference_posterior_draws_file_path(x, pdb = pdb_default(), ...)
```

**Arguments**

|     |                                        |
|-----|----------------------------------------|
| x   | an object to access file path to.      |
| ... | further arguments supplied to methods. |
| pdb | a pdb object.                          |

---

```
reference_posterior_info
    Reference posterior information
```

---

**Description**

Reference posterior information

**Usage**

```
reference_posterior_info(x, type, pdb = pdb_default(), ...)

as.reference_posterior_info(x, type, pdb = pdb_default(), ...)

pdb_reference_posterior_info(x, type, pdb = pdb_default(), ...)

as.pdb_reference_posterior_info(x, type, pdb = pdb_default(), ...)
```

```

reference_posterior_draws_info(x, pdb = pdb_default(), ...)

pdb_reference_posterior_draws_info(x, pdb = pdb_default(), ...)

## S3 method for class 'pdb_posterior'
reference_posterior_info(x, type, ...)

## S3 method for class 'character'
reference_posterior_info(x, type, pdb = pdb_default(), ...)

## S3 method for class 'list'
as.reference_posterior_info(x, type = NULL, pdb = NULL, ...)

```

### Arguments

|      |                                                             |
|------|-------------------------------------------------------------|
| x    | a posterior object to access the reference posterior for.   |
| type | Type of reference posterior [draws] or [summary_statistic]. |
| pdb  | a pdb posterior database connection.                        |
| ...  | Currently not used.                                         |

### Details

Reference posterior information on how, when and by whom the reference posterior was computed.

### See Also

reference\_posterior\_draws

---

reference\_posterior\_names

*Get all existing reference posterior names from a posterior database*

---

### Description

Get all existing reference posterior names from a posterior database

### Usage

```

reference_posterior_names(pdb = pdb_default(), type, ...)

## S3 method for class 'pdb_local'
reference_posterior_names(pdb = pdb_default(), type, ...)

```

**Arguments**

|      |                                      |
|------|--------------------------------------|
| pdb  | a pdb object.                        |
| type | supported reference posterior types. |
| ...  | Further argument to methods.         |

---

reference\_posterior\_summary\_statistic

*Reference posterior summary statistics*


---

**Description**

Reference posterior summary statistics

**Usage**

```
reference_posterior_summary_statistic(x, ...)

pdb_reference_posterior_summary_statistic(x, ...)

## S3 method for class 'character'
reference_posterior_summary_statistic(x, pdb = pdb_default(), type, ...)

## S3 method for class 'pdb_posterior'
reference_posterior_summary_statistic(x, type, ...)

## S3 method for class 'pdb_reference_posterior_info'
reference_posterior_summary_statistic(x, pdb = pdb_default(), type, ...)

## S3 method for class 'list'
reference_posterior_summary_statistic(x, info, type, ...)

reference_posterior_summary_statistics(x, ...)

pdb_reference_posterior_summary_statistics(x, ...)

## S3 method for class 'character'
reference_posterior_summary_statistics(x, pdb = pdb_default(), ...)

## S3 method for class 'pdb_posterior'
reference_posterior_summary_statistics(x, ...)
```

**Arguments**

|     |                                                 |
|-----|-------------------------------------------------|
| x   | a [posterior] object or a posterior name.       |
| ... | further arguments supplied to specific methods. |

|      |                                             |
|------|---------------------------------------------|
| pdb  | a [pdb] object (if [x] is a posterior name) |
| type | the type of summary statistic to extract    |
| info | a [pdb_reference_posterior_info] object     |

**Value**

a [pdb\_reference\_posterior\_summary\_statistic] object.

---

|            |                                      |
|------------|--------------------------------------|
| remove_pdb | <i>Remove objects from local pdb</i> |
|------------|--------------------------------------|

---

**Description**

a function to simplify removing object from a local pdb.

**Usage**

```
remove_pdb(x, pdb, ...)

## S3 method for class 'character'
remove_pdb(x, pdb, ...)

## S3 method for class 'pdb_data'
remove_pdb(x, pdb, remove_info = TRUE, ...)

## S3 method for class 'pdb_data_info'
remove_pdb(x, pdb, ...)

## S3 method for class 'pdb_model_code'
remove_pdb(x, pdb, remove_info = TRUE, ...)

## S3 method for class 'pdb_model_info'
remove_pdb(x, pdb, ...)

## S3 method for class 'pdb_posterior'
remove_pdb(x, pdb, ...)

## S3 method for class 'pdb_reference_posterior_draws'
remove_pdb(x, pdb, remove_info = TRUE, ...)

## S3 method for class 'pdb_reference_posterior_info'
remove_pdb(x, pdb, type, ...)

## S3 method for class 'pdb_reference_posterior_summary_statistic'
remove_pdb(x, pdb, remove_info = TRUE, ...)
```

**Arguments**

|             |                                                     |
|-------------|-----------------------------------------------------|
| x           | an object to remove to the pdb.                     |
| pdb         | the pdb to remove from. Currently only a local pdb. |
| ...         | further arguments supplied to methods.              |
| remove_info | should the information JSON be removed as well?     |
| type        | supported reference posterior types.                |

---

|            |                            |
|------------|----------------------------|
| rename_pdb | <i>Rename a pdb object</i> |
|------------|----------------------------|

---

**Description**

Rename a pdb object

**Usage**

```
rename_pdb(x, new_name, ...)

## S3 method for class 'pdb_data'
rename_pdb(x, new_name, ...)

## S3 method for class 'pdb_posterior'
rename_pdb(x, new_name, ...)
```

**Arguments**

|          |                                |
|----------|--------------------------------|
| x        | an object to rename            |
| new_name | the new name of the object     |
| ...      | further arguments (not in use) |

---

|          |                                |
|----------|--------------------------------|
| run_stan | <i>Run Stan on a posterior</i> |
|----------|--------------------------------|

---

**Description**

Run Stan on a posterior

**Usage**

```
run_stan(x, stan_args, ...)

## S3 method for class 'pdb_posterior'
run_stan(x, stan_args, ...)
```

**Arguments**

|                        |                                                              |
|------------------------|--------------------------------------------------------------|
| <code>x</code>         | a [pdb_posterior] object.                                    |
| <code>stan_args</code> | Arguments supplied to [rstan::stan] to compute the posterior |
| <code>...</code>       | currently not in use.                                        |

---

`subset.pdb_reference_posterior_draws`

*Subset a [pdb\_reference\_posterior\_draws] object*

---

**Description**

Subset a [pdb\_reference\_posterior\_draws] object

**Usage**

```
## S3 method for class 'pdb_reference_posterior_draws'
subset(x, variable, ...)
```

**Arguments**

|                       |                                             |
|-----------------------|---------------------------------------------|
| <code>x</code>        | a [pdb_reference_posterior_draws] to subest |
| <code>variable</code> | parameter names to subset.                  |
| <code>...</code>      | Further arguments (not used).               |

---

`summary_statistic_type`

*Extract the type of summary statistic*

---

**Description**

Extract the type of summary statistic

**Usage**

```
summary_statistic_type(x)
```

**Arguments**

|                |                                               |
|----------------|-----------------------------------------------|
| <code>x</code> | a [pdb_reference_posterior_summary_statistic] |
|----------------|-----------------------------------------------|

---

thin\_draws.pdb\_reference\_posterior\_draws

*Thin draws to reduce their size and autocorrelation of the chains.*


---

### Description

Thin [pdb\_reference\_posterior\_draws] objects to reduce their size and autocorrelation of the chains.

### Usage

```
thin_draws.pdb_reference_posterior_draws(x, thin, ...)
```

### Arguments

|      |                                                               |
|------|---------------------------------------------------------------|
| x    | An R object for which the methods are defined.                |
| thin | A positive integer specifying the period for selecting draws. |
| ...  | Arguments passed to individual methods (if applicable).       |

### Value

A thinned [pdb\_reference\_posterior\_draws] object.

---

|           |                             |
|-----------|-----------------------------|
| write_pdb | <i>Write objects to pdb</i> |
|-----------|-----------------------------|

---

### Description

a function to simplify writing to a local pdb.

### Usage

```
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'pdb_reference_posterior_info'
write_pdb(x, pdb, overwrite = FALSE, type, ...)

## S3 method for class 'pdb_reference_posterior_draws'
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'pdb_reference_posterior_summary_statistic'
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'pdb_data'
write_pdb(x, pdb, overwrite = FALSE, ...)
```

```
## S3 method for class 'pdb_data_info'
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'stanmodel'
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'pdb_model_code'
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'pdb_model_info'
write_pdb(x, pdb, overwrite = FALSE, ...)

## S3 method for class 'pdb_posterior'
write_pdb(x, pdb, overwrite = FALSE, ...)
```

### Arguments

|           |                                                  |
|-----------|--------------------------------------------------|
| x         | an object to write to the pdb.                   |
| pdb       | the pdb to write to. Currently only a local pdb. |
| overwrite | overwrite existing file?                         |
| ...       | further arguments supplied to methods.           |
| type      | supported reference posterior types.             |

# Index

alias\_names, 3  
as.data.frame.pdb\_posterior, 3  
as.data.frame.pdb\_posteriors  
    (as.data.frame.pdb\_posterior),  
    3  
as.data\_info (data\_info), 11  
as.model\_code (model\_code), 16  
as.model\_info (data\_info), 11  
as.pdb\_data (get\_data), 14  
as.pdb\_data\_info (data\_info), 11  
as.pdb\_model\_code (model\_code), 16  
as.pdb\_model\_info (data\_info), 11  
as.pdb\_posterior (posterior), 24  
as.pdb\_reference\_posterior\_draws  
    (as.reference\_posterior\_draws.stanfit),  
    4  
as.pdb\_reference\_posterior\_info  
    (reference\_posterior\_info), 27  
as.posterior (posterior), 24  
as.reference\_posterior\_draws  
    (as.reference\_posterior\_draws.stanfit),  
    4  
as.reference\_posterior\_draws.stanfit,  
    4  
as.reference\_posterior\_info  
    (reference\_posterior\_info), 27  
as.stan\_code (model\_code), 16  
assert\_checked\_reference\_posterior\_draws,  
    5  
assert\_checked\_summary\_statistics\_draws  
    (assert\_checked\_reference\_posterior\_draws),  
    5  
assert\_reference\_posterior\_draws  
    (as.reference\_posterior\_draws.stanfit),  
    4  
  
bibliography, 6  
  
check\_pdb, 6  
check\_pdb\_aliases (check\_pdb), 6  
check\_pdb\_all\_data\_have\_posterior  
    (check\_pdb), 6  
check\_pdb\_all\_models\_have\_posterior  
    (check\_pdb), 6  
check\_pdb\_all\_reference\_posteriors\_have\_posterior  
    (check\_pdb), 6  
check\_pdb\_posterior, 7  
check\_pdb\_posterior\_references  
    (check\_pdb), 6  
check\_pdb\_posterior\_run\_stan  
    (check\_pdb), 6  
check\_pdb\_read\_data (check\_pdb), 6  
check\_pdb\_read\_model\_code (check\_pdb), 6  
check\_pdb\_read\_reference\_posterior\_draws  
    (check\_pdb), 6  
check\_pdb\_references (check\_pdb), 6  
check\_reference\_posterior\_draws, 8  
check\_summary\_statistics\_draws, 9  
compute\_reference\_posterior\_draws, 9  
compute\_reference\_posterior\_draws\_stan\_sampling,  
    10  
compute\_reference\_posterior\_summary\_statistic,  
    10  
compute\_summary\_statistic  
    (compute\_reference\_posterior\_summary\_statistic),  
    10  
  
data\_file\_path, 11  
data\_info, 11  
data\_names, 12  
filter\_posteriors, 13  
framework, 13  
framework<- (framework), 13  
get\_data, 14  
github\_pat, 15  
  
handle\_aliases, 15  
  
info, 15

info<-, 16  
 model\_code, 16  
 model\_code.character(model\_code), 16  
 model\_code.pdb\_model\_info(model\_code), 16  
 model\_code.pdb\_posterior(model\_code), 16  
 model\_code\_file\_path(model\_code), 16  
 model\_info(data\_info), 11  
 model\_names, 17  
 model\_names.pdb\_github(data\_names), 12  
 pdb(pdb\_local), 21  
 pdb.character(pdb\_local), 21  
 pdb.default(pdb\_local), 21  
 pdb.pdb\_model\_code(pdb\_local), 21  
 pdb<-, 24  
 pdb\_aliases, 18  
 pdb\_assert\_file\_exist, 18  
 pdb\_bibliography(bibliography), 6  
 pdb\_cache\_path, 19  
 pdb\_cache\_rm, 19  
 pdb\_cached\_local\_file\_path, 20  
 pdb\_compare\_stan\_models, 20  
 pdb\_config(pdb\_local), 21  
 pdb\_data(get\_data), 14  
 pdb\_data\_info(data\_info), 11  
 pdb\_default(pdb\_local), 21  
 pdb\_file\_copy, 21  
 pdb\_github(pdb\_local), 21  
 pdb\_local, 21  
 pdb\_model\_code(model\_code), 16  
 pdb\_model\_info(data\_info), 11  
 pdb\_posterior(posterior), 24  
 pdb\_reference\_posterior\_draws  
   (as.reference\_posterior\_draws.stanfit), 4  
 pdb\_reference\_posterior\_draws\_info  
   (reference\_posterior\_info), 27  
 pdb\_reference\_posterior\_info  
   (reference\_posterior\_info), 27  
 pdb\_reference\_posterior\_summary\_statistic  
   (reference\_posterior\_summary\_statistic), 29  
 pdb\_reference\_posterior\_summary\_statistics  
   (reference\_posterior\_summary\_statistic), 29  
 pdb\_stan\_code(model\_code), 16  
 pdb\_stan\_sampling\_versions, 23  
 pdb\_version, 23  
 posterior, 24  
 posterior\_dimension\_names, 25  
 posterior\_name(posterior\_names), 25  
 posterior\_names, 25  
 posteriors\_tbl\_df, 26  
 read\_json\_from\_pdb, 26  
 reference\_posterior\_draws  
   (as.reference\_posterior\_draws.stanfit), 4  
 reference\_posterior\_draws\_file\_path, 27  
 reference\_posterior\_draws\_info  
   (reference\_posterior\_info), 27  
 reference\_posterior\_info, 27  
 reference\_posterior\_names, 28  
 reference\_posterior\_names.pdb\_github  
   (data\_names), 12  
 reference\_posterior\_summary\_statistic, 29  
 reference\_posterior\_summary\_statistics  
   (reference\_posterior\_summary\_statistic), 29  
 remove\_pdb, 30  
 rename\_pdb, 31  
 run\_stan, 31  
 stan\_code(model\_code), 16  
 stan\_code\_file\_path(model\_code), 16  
 stan\_data(data\_file\_path), 11  
 stan\_data\_file\_path(data\_file\_path), 11  
 subset.pdb\_reference\_posterior\_draws, 32  
 summary\_statistic\_type, 32  
 thin\_draws.pdb\_reference\_posterior\_draws, 33  
 write\_pdb, 33