Installation of the R package nestedKriging

Prior to the package installation, it is recommended that you update your system and install packages Rcpp, RcppArmadillo, RhpcBLASctl, DiceKriging (and Rtools, for Windows users).

Then install the package from nestedKriging.x.x.x.tar.gz source or eventually from the windows .zip binary.

The steps below give more detailed explanations.

Recommended: Installation from source

1. **For Windows users: install Rtools**

If you use Windows operating system, you have to install Rtools (if not yet installed):
https://cran.r-project.org/bin/windows/Rtools

2. **Install following packages from CRAN: Rcpp, RcppArmadillo, RhpcBLASctl, DiceKriging**

If these packages are not yet installed, you install them using Rstudio by selecting: *Tools, Install Packages…, Install from Repository (CRAN…)*, and typing the name of the package to install. Or you can type in R successively

```
install.packages("Rcpp")
install.packages("RcppArmadillo")
install.packages("RhpcBLASctl")
install.packages("DiceKriging")
```

3. **Download the file *nestedKriging_x.x.x.tar.gz* on your computer**

Download the file *nestedKriging_x.x.x.tar.gz*: you can get it from https://github.com/drulliere/nestedKriging
CAUTION: always use GitHub "download" button, never a right click download! Otherwise the file will be corrupted.

4. **Install the tar.gz file**

On RStudio, you can select: *Tools, Install Packages…, Install from Package Archive File,* and select the file *nestedKriging_x.x.x.tar.gz* (replace x.x.x by the version number, take the latest version). Or you can type in R:

```
install.packages("yourAccessPath/nestedKriging_x.x.x.tar.gz", repos = NULL, type = "source")
```

You have to adapt the access path. It is not necessary to type this access path if the working repository contains the file *nestedKriging_x.x.x.tar.gz*.

5. **Check installation**

The simplest way to run tests is to type in R:

```
library(nestedKriging)
tests_run()
```

you can also try a basic example by typing

```
example(nestedKriging)
```

you can also try some demos by typing one of these

```
demo(demoA)
demo(demoB)
demo(demoC)
demo(demoD)
demo(demoE)
```

see package help if you have questions on the functions of the package.

Alternative for windows users: from binary package

This does not require installing Rtools, but may not work depending on your Windows system and your version of R.

1. **Install following packages from CRAN: Rcpp, RcppArmadillo, RhpcBLASctl, DiceKriging**

If these packages are not yet installed, you install them using Rstudio by selecting: *Tools, Install Packages…, Install from Repository (CRAN…)*, and typing the name of the package to install. Or you can type in R successively

```
install.packages("Rcpp")
install.packages("RcppArmadillo")
install.packages("RhpcBLASctl")
install.packages("DiceKriging")
```

2. **Download the file *nestedKriging_x.x.x.zip* on your computer**

Download the file *nestedKriging_x.x.x.zip*: you can get it from
https://github.com/drulliere/nestedKriging/WindowsBinary

Look in the repository corresponding to your version of R (the one that is written in the console when you open R)
CAUTION: always use GitHub "download" button, never a right click download! Otherwise the file will be corrupted.

3. **Install the zip file**

On RStudio, you can select: *Tools, Install Packages…, Install from Package Archive File,* and select the file *nestedKriging_x.x.x.zip* (replace x.x.x by the version number, take the latest version). Or you can type in R:

```
install.packages("C:/Users/User1/Desktop/nestedKriging_0.1.5.zip", repos = NULL, type
= "win.binary")
```

You have to adapt the access path. It is not necessary to type this access path if the working repository contains the file *nestedKriging_x.x.x.zip*.

4. **Check installation**

The simplest way to run tests is to type in R:

```
library(nestedKriging)
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