

# Package ‘xtensor’

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**Type** Package

**Title** Headers for the 'xtensor' Library

**Version** 0.11.1-0

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**Description** The 'xtensor' C++ library for numerical analysis with multi-dimensional array expressions is provided as a header-only C++14 library. It offers an extensible expression system enabling lazy broadcasting; an API following the idioms of the C++ standard library; and tools to manipulate array expressions and build upon 'xtensor'.

**URL** <https://github.com/QuantStack/xtensor>

**License** BSD\_3\_clause + file LICENSE

**Encoding** UTF-8

**Imports** Rcpp

**LinkingTo** Rcpp

**LazyData** true

**Biarch** true

**Suggests** testthat

**NeedsCompilation** yes

**Repository** CRAN

**Date/Publication** 2019-06-22 04:50:03 UTC

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xtensor-package      *R bindings for the xtensor C++ multi-dimensional array library.*

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### Description

xtensor is a C++ library for multi-dimensional arrays enabling numpy-style broadcasting and lazy computing. xtensor-r enables inplace use of R arrays in C++ with all the benefits from xtensor

- C++ universal functions and broadcasting
- STL - compliant APIs.
- A broad coverage of numpy APIs (see the numpy to xtensor cheat sheet at <http://xtensor.readthedocs.io/en/latest/numpy.html>).

xtensor-r can be used either to author C++ extensions for R with Rcpp, or applications that embed the R interpreter with RInside.

### Details

This section should provide a more detailed overview of how to use the package, including the most important functions.

### Author(s)

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### See Also

Development for **xtensor** can be followed via the GitHub repository at <http://github.com/QuantStack/xtensor>.

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xtensor\_r\_example      *Simple function using xtensor-r*

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### Description

Simple function using xtensor-r

### Usage

```
xtensor_r_example(tens)
```

### Arguments

tens                      The tensor to be processed

**Examples**

```
## Not run:  
xtensor_r_example()  
  
## End(Not run)
```

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