Oracle® FCCM Automated Scenario Calibration Cloud Service

Licensing Information User Manual

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Oracle FCCM Automated Scenario Calibration Cloud Service Licensing Information User Manual, Release 25.08.01

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Preface

This guide provides licensing information for the Oracle Financial Services Crime and Compliance Management Automated Scenario Calibration Cloud Service.

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Oracle Financial Services Crime and Compliance Management Automated Scenario Calibration Cloud Service includes the following product: • Oracle Financial Services Crime and Compliance Management Automated Scenario Calibration Cloud Service	Third party software tools used in the application: • requests • cython • xgboost • python-oracledb • seaborn • scipy • Pandas • NumPy • statsmodels • py4j • pyod • scikit-learn • scikit-optimize • PDPbox • pyjnius • shap • SQLAlchemy • editdistance • Minisom • imbalanced-learn • matplotlib-venn • matplotlib

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4.1.2 cython

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4.1.3 xgboost

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Julia

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Original algorithm for the implementation of rk_interval function from
Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by
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Constants used in the rk_double implementation by Isaku Wada.

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Name: fast_float

Files: scipy/io/_fast_matrix_market/fast_matrix_market/dependencies/fast_float/*

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Name: ryu

Files: scipy/io/_fast_matrix_market/fast_matrix_market/dependencies/ryu/*

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For details, see scipy/linalg/src/id_dist/doc/doc.tex

Name: L-BFGS-B

Files: scipy/optimize/lbfgsb/*

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Name: LAPJVsp

Files: scipy/sparse/csgraph/_matching.pyx

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Name: ampgo
Files: benchmarks/benchmarks/go_benchmark_functions/*.py
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Name: Boost

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Name: UNU.RAN

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Name: NumPy

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Name: array-api-compat

Files: scipy/_lib/array-api-compat/*

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Name: Tempita

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From: Agner Fog <agner@agner.org>

Date: Wed, Jul 22, 2020 at 8:54 PM

Subject: Re: Add BiasedUrn to SciPy?

To: Matt Haberland <mhaberla@calpoly.edu>

Cc: Warren Weckesser <warren.weckesser@gmail.com>

Dear Matt The C++ code for these distributions without binding to the R project are available here:

https://www.agner.org/random/stocc.zip

You have my permission to use it in SciPy under the new BSD license.

Best regards,

Agner Fog

On 22/07/2020 17.05, Matt Haberland wrote:

Hi Agner, I'm a maintainer of the Python scientific computing library SciPy, and I'm working on improving the capabilities of our statistics subpackage scipy.stats. We'd like to add both Fisher's and Wallenius' noncentral hypergeometric distributions, but these look quite challenging to implement. We found your BiasedUrn package, and we'd love to wrap it, but we can't include GPL-3 licensed code under our BSD-new license. Would you consider re-licensing BiasedUrn under a more permissive license, such as BSD-new or MIT, so we can include it in SciPy?

Thank you for considering it!

Matt

--

Matt Haberland

Assistant Professor

BioResource and Agricultural Engineering

08A-3K, Cal Poly

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Written by Francois-Xavier Coudert <fxcoudert@gcc.gnu.org>

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Files: scipy/.dylibs/libopenblas*.so

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Description: bundled in OpenBLAS

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Files: scipy/.dylibs/libgfortran*, scipy/.dylibs/libgcc*
Description: dynamically linked to files compiled with gcc
Availability: https://gcc.gnu.org/git/?p=gcc.git;a=tree;f=libgfortran
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Name: LAPACK

Files: scipy.libs\libopenblas*.dll

Description: bundled in OpenBLAS

Availability: https://github.com/OpenMathLib/OpenBLAS/

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Name: GCC runtime library

Files: scipy.libs\libopenblas*.dll

Description: statically linked to files compiled with gcc

Availability: https://gcc.gnu.org/git/?p=gcc.git;a=tree;f=libgfortran

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David H. Munro wrote Yorick and Gist. Berkeley Yacc (byacc) generated the Yorick parser. The routines in Math are from LAPACK and FFTPACK; MathC contains C translations by David H. Munro. The algorithms for Yorick's random number generator and several special functions in Yorick/include were taken from Numerical Recipes by Press, et. al., although the Yorick implementations are unrelated to those in Numerical Recipes. A small amount of code in Gist was adapted from the X11R4 release, copyright M.I.T. -- the complete copyright notice may be found in the (unused) file Gist/host.c.

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Name: PCG64

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PCG Random Number Generation for C.

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The rk_random and rk_seed functions algorithms and the original design of the Mersenne Twister RNG:

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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The ziggurat methods were derived from Julia.

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Name: nympy.core.ma

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A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python

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releases have also been GPL-compatible; the table below summarizes the various releases.

Release Derived Year Owner GPL-from compatible? (1)

0.9.0 thru 1.2 1991-1995 CWI yes

1.3 thru 1.5.2 1.2 1995-1999 CNRI yes

1.6 1.5.2 2000 CNRI no

2.0 1.6 2000 BeOpen.com no

1.6.1 1.6 2001 CNRI yes (2)

2.1 2.0+1.6.1 2001 PSF no

2.0.1 2.0+1.6.1 2001 PSF yes

2.1.1 2.1+2.0.1 2001 PSF yes

2.2 2.1.1 2001 PSF yes

2.1.2 2.1.1 2002 PSF yes

2.1.3 2.1.2 2002 PSF yes

2.2.1 2.2 2002 PSF yes

2.2.2 2.2.1 2002 PSF yes

2.2.3 2.2.2 2003 PSF yes

2.3 2.2.2 2002-2003 PSF yes

2.3.1 2.3 2002-2003 PSF yes

2.3.2 2.3.1 2002-2003 PSF yes

2.3.3 2.3.2 2002-2003 PSF yes

2.3.4 2.3.3 2004 PSF yes

2.3.5 2.3.4 2005 PSF yes

2.4 2.3 2004 PSF yes

2.4.1 2.4 2005 PSF yes

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2.6 2.5 2008 PSF yes

2.6.1 2.6 2008 PSF yes

2.6.2 2.6.1 2009 PSF yes

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4.2.2 scipy

========== Package: scipy ==========

Name: scipy

Source code URL: https://github.com/scipy/scipy

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========== Dependencies ==========

numpy (BSD License) [https://github.com/numpy/numpy]

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Biasedurn, bundled dependency of scipy, (3-Clause BSD) [scipy/stats/biasedurn/*]

Boost, bundled dependency of scipy, (Boost Software License - Version 1.0) [scipy/_lib/boost_math/*]

Cephes, bundled dependency of scipy, (3-clause BSD) [scipy/special/cephes/*]

Decorator, bundled dependency of scipy, (2-clause BSD) [scipy/_lib/decorator.py]

Faddeeva, bundled dependency of scipy, (MIT) [scipy/special/Faddeeva.*]

HiGHS, bundled dependency of scipy, (MIT) [scipy/optimize/_highs/*]

ID, bundled dependency of scipy, (3-clause BSD) [scipy/linalg/src/id_dist/*]

Julia, bundled dependency of numpy, (MIT) [/numpy/blob/numpy/random/src/distributions/*]

L-BFGS-B, bundled dependency of scipy, (BSD license) [scipy/optimize/lbfgsb/*]

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Meson, bundled dependency of numpy, (Apache 2.0) [vendored-meson/meson/*]

PCG64, bundled dependency of numpy, (MIT) [/numpy/blob/numpy/random/src/pcg64/*]

PHILOX, bundled dependency of numpy, (BSD 3-Clause) [/numpy/blob/numpy/random/src/philox/*]

Qhull, bundled dependency of scipy, (Qhull license (BSD-like)) [scipy/spatial/qhull/*]

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Name: libquadmath

Files: scipy.libs/libquadmath*.so

Description: dynamically linked to files compiled with gcc

Availability: https://gcc.gnu.org/git/?p=gcc.git;a=tree;f=libquadmath

License: LGPL-2.1-or-later

GCC Quad-Precision Math Library

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Written by Francois-Xavier Coudert <fxcoudert@gcc.gnu.org>

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From: Agner Fog <agner@agner.org>

Date: Wed, Jul 22, 2020 at 8:54 PM

Subject: Re: Add BiasedUrn to SciPy?

To: Matt Haberland <mhaberla@calpoly.edu>

Cc: Warren Weckesser <warren.weckesser@gmail.com>

Dear Matt The C++ code for these distributions without binding to the R project are available here:

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Best regards,

Agner Fog

On 22/07/2020 17.05, Matt Haberland wrote:

Hi Agner, I'm a maintainer of the Python scientific computing library SciPy, and I'm working on improving the capabilities of our statistics subpackage scipy.stats. We'd like to add both Fisher's and Wallenius' noncentral hypergeometric distributions, but these look quite challenging to implement. We found your BiasedUrn package, and we'd love to wrap it, but we can't include GPL-3 licensed code under our BSD-new license. Would you consider re-licensing BiasedUrn under a more permissive license, such as BSD-new or MIT, so we can include it in SciPy?

Thank you for considering it!

Matt

--

Matt Haberland

Assistant Professor

BioResource and Agricultural Engineering

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unuran-1.8.1/autoconf/mdate-sh

unuran-1.8.1/autoconf/missing

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unuran-1.8.1/configure

unuran-1.8.1/doc/Makefile.am

unuran-1.8.1/doc/Makefile.in

unuran-1.8.1/doc/figures/Makefile.am

unuran-1.8.1/doc/figures/Makefile.in

unuran-1.8.1/doc/figures/discrete_inversion.eps

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unuran-1.8.1/doc/src/ref_example2_str.texi

unuran-1.8.1/doc/src/ref_example3.texi

unuran-1.8.1/doc/src/ref_example3_str.texi

unuran-1.8.1/doc/src/ref_example_FuncStr.texi

unuran-1.8.1/doc/src/ref_example_anti.texi

unuran-1.8.1/doc/src/ref_example_anti_str.texi

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unuran-1.8.1/doc/src/ref_example_cont.texi

unuran-1.8.1/doc/src/ref_example_cont_str.texi

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unuran-1.8.1/tests/t_deprecated_tdrgw.c

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UNU.RAN relies on a modified version of the library Cephes, see ./src/src/specfunct/cephes_source.h

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Name: OpenBLAS

Files: numpy.libs/libscipy_openblas*.so

Description: bundled as a dynamically linked library

Availability: https://github.com/OpenMathLib/OpenBLAS/

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Name: libquadmath

Files: numpy.libs/libquadmath*.so

Description: dynamically linked to files compiled with gcc

Availability: https://gcc.gnu.org/git/?p=gcc.git;a=tree;f=libquadmath

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GCC Quad-Precision Math Library

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Written by Francois-Xavier Coudert <fxcoudert@gcc.gnu.org>

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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PCG Random Number Generation for C.

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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*

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Name: libdivide

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Files: vendored-meson/meson/*

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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PCG Random Number Generation for C.

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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The ziggurat methods were derived from Julia.

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Written by Francois-Xavier Coudert <fxcoudert@gcc.gnu.org>

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python-dateutil

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six

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4.2.4 NumPy

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MT19937

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The rk_random and rk_seed functions algorithms and the original design of
the Mersenne Twister RNG:

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Original algorithm for the implementation of rk_interval function from
Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by
Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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PCG Random Number Generation for C.

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SFC64

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

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https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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numpy-1.19.5-cp36-cp36m-manylinux1_x86_64.whl

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4.2.5 statsmodels

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statsmodels needs "pandas"

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Files: scipy/optimize/lbfgsb/*

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From the website for the L-BFGS-B code (from at

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"""

L-BFGS-B is a limited-memory quasi-Newton code for bound-constrained

optimization, i.e. for problems where the only constraints are of the

form l<= x <= u.

"""

This is a Python wrapper (using F2PY) written by David M. Cooke

<cookedm@physics.mcmaster.ca> and released as version 0.9 on April 9, 2004.

The wrapper was slightly modified by Joonas Paalasmaa for the 3.0 version

in March 2012.

License of L-BFGS-B (Fortran code)

==================================

The version included here (in lbfgsb.f) is 3.0 (released April 25, 2011). It was

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References
* R. H. Byrd, P. Lu and J. Nocedal. A Limited Memory Algorithm for Bound
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* C. Zhu, R. H. Byrd and J. Nocedal. L-BFGS-B: Algorithm 778: L-BFGS-B,
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ACM Transactions on Mathematical Software, 23, 4, pp. 550 - 560.
* J.L. Morales and J. Nocedal. L-BFGS-B: Remark on Algorithm 778: L-BFGS-B,
FORTRAN routines for large scale bound constrained optimization (2011),
ACM Transactions on Mathematical Software, 38, 1.
"""

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==========

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Example usage
==========

An example of the usage is given at the bottom of the lbfgsb.py file.
Run it with 'python lbfgsb.py'.

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C.B. Barber

Arlington, MA

and

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Name: ampgo

Files: benchmarks/benchmarks/go_benchmark_functions/*.py

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Functions for testing global optimizers, forked from the AMPGO project,

Coded by Andrea Gavana

https://code.google.com/archive/p/ampgo

Name: pybind11

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Name: HiGHS

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Name: Tempita

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Name: LAPACK

Files: scipy/.dylibs/libopenblas*.so

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Written by Francois-Xavier Coudert <fxcoudert@gcc.gnu.org>

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4.2.6 py4j

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AUTHOR

David H. Munro wrote Yorick and Gist. Berkeley Yacc (byacc) generated the Yorick parser. The routines in Math are from LAPACK and FFTPACK; MathC contains C translations by David H. Munro. The algorithms for Yorick's random number generator and several special functions in Yorick/include were taken from Numerical Recipes by Press, et. al., although the Yorick implementations are unrelated to those in Numerical Recipes. A small amount of code in Gist was adapted from the X11R4 release, copyright M.I.T. -- the complete copyright notice may be found in the (unused) file Gist/host.c.

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jquery.graphviz.svg (https://github.com/mountainstorm/jquery.graphviz.svg/)

The DAG roadmap rendering code in docs/dagmap/ uses Javascript from this
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==========

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see https://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

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Release Derived Year Owner GPL-
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0.9.0 thru 1.2 1991-1995 CWI yes
1.3 thru 1.5.2 1.2 1995-1999 CNRI yes
1.6 1.5.2 2000 CNRI no
2.0 1.6 2000 BeOpen.com no
1.6.1 1.6 2001 CNRI yes (2)
2.1 2.0+1.6.1 2001 PSF no
2.0.1 2.0+1.6.1 2001 PSF yes
2.1.1 2.1+2.0.1 2001 PSF yes
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cloudpickle

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Description: bundled in OpenBLAS

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dragon4

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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The ziggurat methods were derived from Julia.

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Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by
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Constants used in the rk_double implementation by Isaku Wada.

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https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Name: uarray
Files: scipy/_lib/uarray/*

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Name: ampgo

Files: benchmarks/benchmarks/go_benchmark_functions/*.py

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Functions for testing global optimizers, forked from the AMPGO project,

https://code.google.com/archive/p/ampgo

Name: pybind11

Files: no source files are included, however pybind11 binary artifacts are

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---------- Separator ----------

./scipy/stats/biasedurn/license.txt

---------- Forwarded message ---------

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From: Agner Fog <agner@agner.org>

Date: Wed, Jul 22, 2020 at 8:54 PM

Subject: Re: Add BiasedUrn to SciPy?

To: Matt Haberland <mhaberla@calpoly.edu>

Cc: Warren Weckesser <warren.weckesser@gmail.com>

Dear Matt The C++ code for these distributions without binding to the R project are available here:

https://www.agner.org/random/stocc.zip

You have my permission to use it in SciPy under the new BSD license.

Best regards,

Agner Fog

On 22/07/2020 17.05, Matt Haberland wrote:

Hi Agner, I'm a maintainer of the Python scientific computing library SciPy, and I'm working on improving the capabilities of our statistics subpackage scipy.stats. We'd like to add both Fisher's and Wallenius' noncentral hypergeometric distributions, but these look quite challenging to implement. We found your BiasedUrn package, and we'd love to wrap it, but we can't include GPL-3 licensed code under our BSD-new license. Would you consider re-licensing BiasedUrn under a more permissive license, such as BSD-new or MIT, so we can include it in SciPy?

Thank you for considering it!

Matt

--

Matt Haberland

Assistant Professor

BioResource and Agricultural Engineering

08A-3K, Cal Poly

---------- Separator ----------

./tools/wheels/LICENSE_linux.txt

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This binary distribution of SciPy also bundles the following software:

Name: OpenBLAS

Files: scipy.libs/libopenblas*.so

Description: bundled as a dynamically linked library

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Description: bundled in OpenBLAS

Availability: https://github.com/OpenMathLib/OpenBLAS/

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Files: scipy.libs/libgfortran*.so
Description: dynamically linked to files compiled with gcc
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Description: dynamically linked to files compiled with gcc
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Name: LAPACK

Files: scipy.libs\libopenblas*.dll

Description: bundled in OpenBLAS

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Name: GCC runtime library

Files: scipy.libs\libopenblas*.dll

Description: statically linked to files compiled with gcc

Availability: https://gcc.gnu.org/git/?p=gcc.git;a=tree;f=libgfortran

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The C version was initially converted via f2c and then cleaned up and
reorganized by Steven G. Johnson (stevenj@alum.mit.edu), August 2007.

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C.B. Barber
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The National Science and Technology Research Center for
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Chris Colbert began the Kiwi project in December 2013 in an effort to

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Name OpenBLAS

Files: extra-dll\libopenb*.dll

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Name LAPACK

Files: extra-dll\libopenb*.dll

Description: bundled in OpenBLAS

Availability: https://github.com/xianyi/OpenBLAS/

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Name: GCC runtime library

Files: extra-dll*.dll

Description: statically linked, in DLL files compiled with gfortran only

Availability: https://gcc.gnu.org/viewcvs/gcc/

License: GPLv3 + runtime exception

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Name: Microsoft Visual C++ Runtime Files

Files: extra-dll\msvcp140.dll

License: MSVC

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Name: Microsoft Visual C++ Runtime Files

Files: extra-dll\msvc*90.dll, extra-dll\Microsoft.VC90.CRT.manifest

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dragon4

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

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Name: ampgo

Files: benchmarks/benchmarks/go_benchmark_functions/*.py

License: MIT

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Name: HiGHS

Files: scipy/optimize/_highs/*

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AUTHOR

David H. Munro wrote Yorick and Gist. Berkeley Yacc (byacc) generated the Yorick parser. The routines in Math are from LAPACK and FFTPACK;

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MathC contains C translations by David H. Munro. The algorithms for
Yorick's random number generator and several special functions in
Yorick/include were taken from Numerical Recipes by Press, et. al.,
although the Yorick implementations are unrelated to those in
Numerical Recipes. A small amount of code in Gist was adapted from
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4.3.2 pyjnius

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4.3.3 shap

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shap 0.46.0 has dependencies on following libraries:

cloudpickle

numba

numpy

packaging

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dragon4

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Name: MT19937

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Name: SPLITMIX64

Written in 2015 by Sebastiano Vigna (vigna@acm.org)

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Name: SFC64

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Name: PCG64

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PCG Random Number Generation for C.

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Name: MT19937

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The rk_random and rk_seed functions algorithms and the original design of the Mersenne Twister RNG:

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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Name: Julia

The ziggurat methods were derived from Julia.

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Components

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Name: numpy.core.ma

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Name: fast_matrix_market

Files: scipy/io/_fast_matrix_market/*

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Name: L-BFGS-B

Files: scipy/optimize/lbfgsb/*

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From the website for the L-BFGS-B code (from at

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"""

L-BFGS-B is a limited-memory quasi-Newton code for bound-constrained

optimization, i.e. for problems where the only constraints are of the

form l<= x <= u.

"""

This is a Python wrapper (using F2PY) written by David M. Cooke

<cookedm@physics.mcmaster.ca> and released as version 0.9 on April 9, 2004.

The wrapper was slightly modified by Joonas Paalasmaa for the 3.0 version

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License of L-BFGS-B (Fortran code)

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* R. H. Byrd, P. Lu and J. Nocedal. A Limited Memory Algorithm for Bound
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Statistical Computing, 16, 5, pp. 1190-1208.
* C. Zhu, R. H. Byrd and J. Nocedal. L-BFGS-B: Algorithm 778: L-BFGS-B,
FORTRAN routines for large scale bound constrained optimization (1997),
ACM Transactions on Mathematical Software, 23, 4, pp. 550 - 560.
* J.L. Morales and J. Nocedal. L-BFGS-B: Remark on Algorithm 778: L-BFGS-B,
FORTRAN routines for large scale bound constrained optimization (2011),
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"""

The Python wrapper
==================

This code uses F2PY (http://cens.ioc.ee/projects/f2py2e/) to generate
the wrapper around the Fortran code.

The Python code and wrapper are copyrighted 2004 by David M. Cooke
<cookedm@physics.mcmaster.ca>.

Example usage
=============

An example of the usage is given at the bottom of the lbfgsb.py file.
Run it with 'python lbfgsb.py'.

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==============================

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Files: benchmarks/benchmarks/go_benchmark_functions/*.py

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=== Source URL: https://github.com/sqlalchemy/sqlalchemy/tree/rel_2_0_36

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Dependency: :typing-extensions
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In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see https://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see https://www.python.org/psf/) was formed, a non-profit organization

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2.0 1.6 2000 BeOpen.com no
1.6.1 1.6 2001 CNRI yes (2)
2.1 2.0+1.6.1 2001 PSF no
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4.3.7 imbalanced-learn

========== Package: imbalanced-learn ==========

Name: imbalanced-learn

Source code URL: https://github.com/scikit-learn-contrib/imbalanced-learn

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Name: LAPACK

Files: .libs/libopenb*.so

Description: bundled in OpenBLAS

Availability: https://github.com/xianyi/OpenBLAS/

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https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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PCG Random Number Generation for C.

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Original algorithm for the implementation of rk_interval function from Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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Arlington, MA

and

The National Science and Technology Research Center for

Computation and Visualization of Geometric Structures

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---------- Forwarded message ---------

From: Agner Fog <agner@agner.org>

Date: Wed, Jul 22, 2020 at 8:54 PM

Subject: Re: Add BiasedUrn to SciPy?

To: Matt Haberland <mhaberla@calpoly.edu>

Cc: Warren Weckesser <warren.weckesser@gmail.com>

Dear Matt The C++ code for these distributions without binding to the R project

are available here:

https://www.agner.org/random/stocc.zip

You have my permission to use it in SciPy under the new BSD license.

Best regards,

Agner Fog

On 22/07/2020 17.05, Matt Haberland wrote:

Hi Agner, I'm a maintainer of the Python scientific computing library SciPy,

and I'm working on improving the capabilities of our statistics subpackage

scipy.stats. We'd like to add both Fisher's and Wallenius' noncentral

hypergeometric distributions, but these look quite challenging to implement.

We found your BiasedUrn package, and we'd love to wrap it, but we can't

include GPL-3 licensed code under our BSD-new license. Would you consider

re-licensing BiasedUrn under a more permissive license, such as BSD-new or

MIT, so we can include it in SciPy?

Thank you for considering it!

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Matt

--

Matt Haberland

Assistant Professor

BioResource and Agricultural Engineering

08A-3K, Cal Poly

Name: UNU.RAN

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unuran-1.8.1/aclocal.m4

unuran-1.8.1/autoconf/config.guess

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unuran-1.8.1/examples/example2_str.c

unuran-1.8.1/examples/example3.c

unuran-1.8.1/examples/example3_str.c

unuran-1.8.1/examples/example_FuncStr.c

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unuran-1.8.1/examples/example_anti_str.c

unuran-1.8.1/examples/example_cext.c

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unuran-1.8.1/src/uniform/urng_randomshift.c

unuran-1.8.1/src/uniform/urng_randomshift.h

unuran-1.8.1/src/uniform/urng_rngstreams.c

unuran-1.8.1/src/uniform/urng_rngstreams.h

unuran-1.8.1/src/unuran.h.in

unuran-1.8.1/src/urng/Makefile.am

unuran-1.8.1/src/urng/Makefile.in

unuran-1.8.1/src/utils/Makefile.am

unuran-1.8.1/src/utils/Makefile.in

unuran-1.8.1/tests/Makefile.am

unuran-1.8.1/tests/Makefile.in

unuran-1.8.1/tests/README.conf

unuran-1.8.1/tests/make_test_files.pl

unuran-1.8.1/tests/t_arou.c

unuran-1.8.1/tests/t_arou.conf

unuran-1.8.1/tests/t_ars.c

unuran-1.8.1/tests/t_ars.conf

unuran-1.8.1/tests/t_auto.c

unuran-1.8.1/tests/t_auto.conf

unuran-1.8.1/tests/t_cext.c

unuran-1.8.1/tests/t_cext.conf

unuran-1.8.1/tests/t_cstd.c

unuran-1.8.1/tests/t_cstd.conf

unuran-1.8.1/tests/t_dari.c

unuran-1.8.1/tests/t_dari.conf

unuran-1.8.1/tests/t_dau.c

unuran-1.8.1/tests/t_dau.conf

unuran-1.8.1/tests/t_deprecated_tdrgw.c

unuran-1.8.1/tests/t_deprecated_vmt.c

unuran-1.8.1/tests/t_deprecated_vmt.conf

unuran-1.8.1/tests/t_dext.c

unuran-1.8.1/tests/t_dext.conf

unuran-1.8.1/tests/t_dgt.c

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unuran-1.8.1/tests/t_distr.c

unuran-1.8.1/tests/t_distr.conf

unuran-1.8.1/tests/t_distr_cemp.c

unuran-1.8.1/tests/t_distr_cemp.conf

unuran-1.8.1/tests/t_distr_condi.c

unuran-1.8.1/tests/t_distr_condi.conf

unuran-1.8.1/tests/t_distr_cont.c

unuran-1.8.1/tests/t_distr_cont.conf

unuran-1.8.1/tests/t_distr_corder.c

unuran-1.8.1/tests/t_distr_corder.conf

unuran-1.8.1/tests/t_distr_cvec.c

unuran-1.8.1/tests/t_distr_cvec.conf

unuran-1.8.1/tests/t_distr_cvemp.c

unuran-1.8.1/tests/t_distr_cvemp.conf

unuran-1.8.1/tests/t_distr_cxtrans.c

unuran-1.8.1/tests/t_distr_cxtrans.conf

unuran-1.8.1/tests/t_distr_discr.c

unuran-1.8.1/tests/t_distr_discr.conf

unuran-1.8.1/tests/t_distr_matr.c

unuran-1.8.1/tests/t_distr_matr.conf

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unuran-1.8.1/tests/t_gibbs.c

unuran-1.8.1/tests/t_gibbs.conf

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unuran-1.8.1/tests/t_hist.conf

unuran-1.8.1/tests/t_hitro.c

unuran-1.8.1/tests/t_hrb.c

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unuran-1.8.1/tests/t_mcorr.c

unuran-1.8.1/tests/t_mcorr.conf

unuran-1.8.1/tests/t_mixt.c

unuran-1.8.1/tests/t_mvstd.c

unuran-1.8.1/tests/t_mvstd.conf

unuran-1.8.1/tests/t_mvtdr.c

unuran-1.8.1/tests/t_ninv.c

unuran-1.8.1/tests/t_ninv.conf

unuran-1.8.1/tests/t_norta.c

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unuran-1.8.1/tests/t_nrou.c

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unuran-1.8.1/tests/t_pinv

unuran-1.8.1/tests/t_pinv.c

unuran-1.8.1/tests/t_srou.c

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unuran-1.8.1/tests/t_ssr.c

unuran-1.8.1/tests/t_ssr.conf

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unuran-1.8.1/tests/t_tabl.conf

unuran-1.8.1/tests/t_tdr.c

unuran-1.8.1/tests/t_tdr.conf

unuran-1.8.1/tests/t_tdr_gw.c

unuran-1.8.1/tests/t_tdr_gw.conf

unuran-1.8.1/tests/t_tdr_ia.c

unuran-1.8.1/tests/t_tdr_ia.conf

unuran-1.8.1/tests/t_tdr_ps.c

unuran-1.8.1/tests/t_tdr_ps.conf

unuran-1.8.1/tests/t_unif.c

unuran-1.8.1/tests/t_unif.conf

unuran-1.8.1/tests/t_unur_error.c

unuran-1.8.1/tests/t_unur_error.conf

unuran-1.8.1/tests/t_unur_tests.c

unuran-1.8.1/tests/t_unur_tests.conf

unuran-1.8.1/tests/t_urng.c

unuran-1.8.1/tests/t_urng.conf

unuran-1.8.1/tests/t_utdr.c

unuran-1.8.1/tests/t_utdr.conf

unuran-1.8.1/tests/t_util_matrix.c

unuran-1.8.1/tests/t_util_matrix.conf

unuran-1.8.1/tests/t_vempk.c

unuran-1.8.1/tests/t_vempk.conf

unuran-1.8.1/tests/t_vnrou.c

unuran-1.8.1/tests/t_vnrou.conf

unuran-1.8.1/tests/t_x_gen.c

unuran-1.8.1/tests/t_x_gen.conf

unuran-1.8.1/tests/test_StdDistr.c

unuran-1.8.1/tests/test_StdDistr.m

unuran-1.8.1/tests/test_functionparser.c

unuran-1.8.1/tests/test_functionparser.m

unuran-1.8.1/tests/testcounter.c

unuran-1.8.1/tests/testdistributions/Makefile.am

unuran-1.8.1/tests/testdistributions/Makefile.in

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unuran-1.8.1/tests/testdistributions/c_sawtooth_contpdf.c

unuran-1.8.1/tests/testdistributions/c_sawtooth_discpdf.c

unuran-1.8.1/tests/testdistributions/c_w_pdf_from_logpdf.c

unuran-1.8.1/tests/testdistributions/c_with_multiple_of_pdf.c

unuran-1.8.1/tests/testdistributions/c_wo_logpdf.c

unuran-1.8.1/tests/testdistributions/testdistributions.h

unuran-1.8.1/tests/testdistributions/vc_cauchy_RoU_ball.c

unuran-1.8.1/tests/testdistributions/vc_special_correlations_ar1.c

unuran-1.8.1/tests/testdistributions/vc_special_correlations_constantrho.c

unuran-1.8.1/tests/testdistributions/vc_w_marginals.c

unuran-1.8.1/tests/testdistributions/vc_wo_logpdf.c

unuran-1.8.1/tests/testroutines.c

unuran-1.8.1/tests/testunuran.h

unuran-1.8.1/src/distr/deprecated_distr.c

unuran-1.8.1/src/distr/deprecated_distr.h

unuran-1.8.1/src/methods/deprecated_methods.c

unuran-1.8.1/src/methods/deprecated_methods.h

unuran-1.8.1/src/methods/deprecated_tdrgw.h

unuran-1.8.1/src/methods/deprecated_vmt.c

unuran-1.8.1/src/methods/deprecated_vmt.h

unuran-1.8.1/src/methods/deprecated_vmt_struct.h

unuran-1.8.1/src/parser/stringparser_lists.ch.in

UNU.RAN relies on a modified version of the library Cephes, see ./src/src/specfunct/cephes_source.h

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4.3.8 matplotlib-venn

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Name: dragon4

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Name: libdivide

Files: numpy/core/include/numpy/libdivide/*

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The ziggurat methods were derived from Julia.

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Original algorithm for the implementation of rk_interval function from

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Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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Name: pcg64

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PCG Random Number Generation for C.

Copyright 2014 Melissa O'Neill <oneill@pcg-random.org>

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Name: sfc64

Files: numpy/src/sfc64/*

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Name: splitmix64

Files: numpy/src/splitmix64/*

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kiwisolver

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Chris Colbert began the Kiwi project in December 2013 in an effort to

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David H. Munro wrote Yorick and Gist. Berkeley Yacc (byacc) generated the Yorick parser. The routines in Math are from LAPACK and FFTPACK; MathC contains C translations by David H. Munro. The algorithms for Yorick's random number generator and several special functions in Yorick/include were taken from Numerical Recipes by Press, et. al., although the Yorick implementations are unrelated to those in Numerical Recipes. A small amount of code in Gist was adapted from the X11R4 release, copyright M.I.T. -- the complete copyright notice may be found in the (unused) file Gist/host.c.

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agg24-svn

The Anti-Grain Geometry Project
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ttutil.cpp

/*

* Modified for use within matplotlib

* 5 July 2007

* Michael Droettboom

*/

/* Very simple interface to the ppr TT routines */

/* (c) Frank Siegert 1996 */

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/*

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*/

/*

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** TrueType font support. These functions allow PPR to generate

** PostScript fonts from Microsoft compatible TrueType font files.

**

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*/

++++++++++++++

pprdrv_tt2.cpp

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**
** TrueType font support. These functions allow PPR to generate
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**
** The functions in this file do most of the work to convert a
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**
** Most of the material in this file is derived from a program called
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**
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**

** This include file is shared by the source files

** "pprdrv/pprdrv_tt.c" and "pprdrv/pprdrv_tt2.c".

**

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*/

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_tkmini.h

/* Small excerpts from the Tcl / Tk 8.6 headers

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PCG Random Number Generation for C.

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Original algorithm for the implementation of rk_interval function from
Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by
Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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SPLITMIX64

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