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The Astrophysics Source Code Library (ASCL) is a free online registry for source codes of interest to astronomers and astrophysicists and lists codes that have been used in research that has appeared in, or been submitted to, peer-reviewed publications. The ASCL is indexed by the [SAO/NASA Astrophysics Data System \(ADS\)](#) and is citable by using the unique ascl ID assigned to each code. The ascl ID can be used to link to the code entry by prefixing the number with ascl.net (i.e., [ascl.net/201.001](#)).

Most Recently Added Codes
2015 Sep 21

[ascl:1509.003] **AFR (ASPFitsReader)**
Ferdman, Robert D.
AFR, or ASPFitsReader, reduces, processes, and interactive excision of radio frequency interference from radio frequency interferometry data. It is designed to be used with Tempo (ascl:1509.002) and Tempo2 (ascl:1510.015) timing software.

[ascl:1509.002] **Tempo: Pulsar timing data analysis**
Manchester, R.; Taylor, J.; Peters, W.; Weisberg, J.; Irwin, A.; Wex, N.; Stairs, J.; Demorest, P.; Nice, D.
Tempo analyses pulsar timing data. Pulse times of arrival (TOAs), pulsar model parameters, and coded instructions are read from one or more input files. The TOAs are fitted by a pulse timing model incorporating transformation to the solar-system barycenter, pulsar rotation and spin-down and, where necessary, one of several binary models. Program output includes parameter values and uncertainties, residual pulse arrival times, and a plot of the residuals. Tempo also includes a module for generating the ephemerides of pulse phase behavior for the Tempo2 (ascl:1510.015) timing software.

Ten newest codes
on home page

Cited in
MNRAS, A&A,
ApJ, PASP,
PASJ, and
other
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Results 701-800 of 918 (916 ASCL, 2 submitted)

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[ascl:1308.014] **SPEX: High-resolution**
[ascl:1308.015] **Ceph_code: Cepheid**
[ascl:1308.016] **JHelioviewer: Visual**
[ascl:1308.017] **ChiantiPy: Python p**
[ascl:1308.018] **MoogStokes: Zeema**
[ascl:1309.001] **AstrolImage: Image for Astronomy**
[ascl:1309.002] **VAPHOT: Precision differential aperture photometry package**
[ascl:1309.003] **LOSP: Liège Orbital Solution Package**

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ASCL Code Record

[ascl:1106.007] **MIRIAD: Multi-channel Image Reconstruction, Image Analysis, and Display**
Sault, R. J.; Teuben, P. J.; Wright, M. C. H.
MIRIAD is a radio interferometry data-reduction package, designed for taking raw visibility data through calibration to the image analysis stage. It has been designed to handle any interferometric array, with working examples for BIMA, CARMA, SMA, WSRT, and ATCA. A separate version for ATCA is available at <http://www.atca.nyu.edu/~msh/astrophysics/miriad/>.
Website: <http://carma.astro.umd.edu/miriad/>
Appears in: <http://arxiv.org/abs/astro-ph/0607067>
Bibcode: 2011ascl.soft060075
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Searching for codes credited to 'Portegies Zwart, Simon F.'

Tip! Refine or expand your search. Authors are sometimes listed as 'Smith, J. K.' instead of 'Smith, John' so it is useful to search for last names only. Note this is currently a simple phrase search.

Portegies Zwart, Simon F. Search

[ascl:1201.002] **Roche: Visualization and analysis tool for Roche-lobe geometry of evolving binaries**
Portegies Zwart, Simon F.
Roche is a visualization and analysis tool for drawing the Roche-lobe geometry of evolving binaries. Roche can be used as a standalone program reading data from the command line or from a file generated by SeBa. Eventually Roche will be able to read data from any other binary evolution program. Roche requires [Starlab](#) (version 4.1.1 or later) and the [ogstlib](#) libraries. Roche creates a series of images, based on the [SeBa](#) output file SeBa.data, displaying the evolutionary state of a binary.

[ascl:1401.001] **Kirin: N-body simulation library**
Belleman, Robert; Bédorf, Jeroen; Portegies Zwart, Simon F.
The use of graphics processing units offers an attractive alternative to CPUs for N-body simulations. Kirin is a N-body simulation library that uses GPUs to accelerate the calculation of the gravitational forces between particles. It is designed to be used as a standalone program reading data from the command line or from a file generated by SeBa. Eventually Roche will be able to read data from any other binary evolution program. Roche requires [Starlab](#) (version 4.1.1 or later) and the [ogstlib](#) libraries. Roche creates a series of images, based on the [SeBa](#) output file SeBa.data, displaying the evolutionary state of a binary.

[ascl:1201.001] **McScatter: Three-Body Scattering**
Heggie, Douglas C.; Portegies Zwart, Simon; Hurley, Jarrod
McScatter illustrates a method of combining stellar dynamics especially the dynamical evolution of rich star clusters. The dynamical evolution is computed using a block timescale scheme, as described earlier. Stellar and binary evolution is updated at fixed intervals (every 1/64 of a crossing time, typically a few thousand years). Any feedback between the two processes may thus experience a delay of at most one timescale. Internal evolution time steps may differ for each star and binary, and depend on binary period, perturbations due to neighbors, and the evolutionary state of the star. Time

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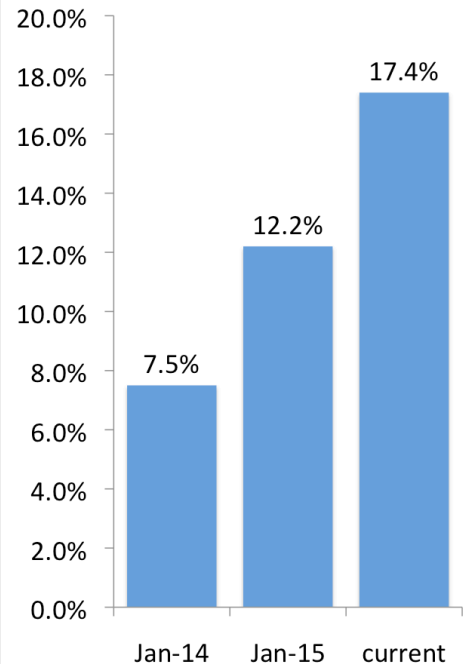
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Site: <http://www.manbody.org/manbody/roche/>
Ref: <http://arxiv.org/abs/astro-ph/0604394>
Bibcode: 2011ascl.soft060075
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Working towards Sustainable Software for Science 2 & 3 (New Orleans, LA and Boulder, CO)

University of Massachusetts (Lowell, MA)

3rd DC/MD/VA Summer Astrophysics Meeting (Washington, DC)

Python in Astronomy (Leiden, Netherlands)

National Institute of Standards and Technology (Gaithersburg, MD)

American Astronomical Society (Seattle, WA)

.astronomy (Chicago, IL)

Image: Hubble Heritage

Alice Allen (ASCL), Bruce Berriman (IPAC, Caltech), Kimberly DuPrie (STScI/ASCL), Jessica D. Mink (SAO), Robert J. Nemiroff (MTU), Judy Schmidt (ASCL), Lior Shamir (LTU), Keith Shortridge (AAO), Mark B. Taylor (UBristol), Peter J. Teuben (UMD), John F. Wallin (MTSU)