

OpenDreamKit Glossary



binder	web-application for jupyter notebook visualization from a github repository http://mybinder.org/
CAS	Computer Algebra System
Cython	optimising static compiler from Python to C http://cython.org
docker	software container platform (alternative to VM) https://www.docker.com
flint	C library for number theory http://flintlib.org
GAP	CAS for discrete computational algebra https://www.gap-system.org
git	a version control system https://git-scm.com/
GitHub	website for collaborative software development based on git https://github.com
HPC	High Performance Computing
IPython IP[y]:	IPython is a command shell for interactive computing https://ipython.org
JOOMMF	Jupyter-OOMMF http://joommf.github.io
jupyter	web-application for interactive computations http://jupyter.org/
jupyterhub	configurable multi-user Jupyter https://jupyterhub.readthedocs.io
LinBox	exact linear algebra C++ library http://www.linalg.org
LMFDB	L-functions and Modular Forms Database: collaborative knowledge and data-base for number theory http://www.lmfdb.org/
MathHub	portal for active mathematical documents and formalizations https://mathhub.info
MMT	Meta-Meta-Tool: data/knowledge/software management framework based on OMDoc/MMT

MPIR	C library for multiprecision integer and rational. Fork of another project, GMP. http://mpir.org
nbdime	Python library for merging Jupyter notebooks https://github.com/jupyter/nbdime
nbval	Python library to test Jupyter notebooks https://github.com/computationalmodelling/nbval
NumPy	Python library for multi-dimensional arrays and linear algebra https://www.numpy.org
OMDoc/MMT	Open Mathematical Documents / Meta Meta Theories: representation format http://uniformal.github.io/doc/index.html
OOMMF	Object Oriented MicroMagnetic Framework http://math.nist.gov/oommf/
OpenMath	extensible standard for representing the semantics of mathematical objects http://openmath.org
PARI	C library for number theory and command line interface https://pari.math.u-bordeaux.fr
python	programming language and interpreter https://www.python.org
Pythran	Python to C++ compiler for a subset of the Python language, with a focus on scientific computing https://pythonhosted.org/pythran
SAGE	CAS which aggregates dozens of other softwares and libraries such as FLINT, GAP, MPIR, PARI/GP, Singular http://www.sagemath.org
SageMathCloud	web-appliction and website for collaborative work around Sage, Jupyter, LaTeX, ... https://cloud.sagemath.com
SciPy	ecosystem of scientific Python packages (scipy, numpy, IPython, sympy, matplotlib, pandas) https://scipy.org
SCSCP	Symbolic Computation Software Composability Protocol
SIMD	Single Instruction Multiple Data (in-core parallelism)
SINGULAR	CAS for commutative algebra and algebraic geometry https://www.singular.uni-kl.de
VM	Virtual Machine: software that emulates a computer system inside an operating system
VRE	Virtual Research Environment