

Resource Summary Report

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CVXOPT - Python Software for Convex Optimization

RRID:SCR_002918

Type: Tool

Proper Citation

CVXOPT - Python Software for Convex Optimization (RRID:SCR_002918)

Resource Information

URL: <http://abel.ee.ucla.edu/cvxopt>

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Description: THIS RESOURCE IS NO LONGER IN SERVICE. Documented on January 4, 2023. Software package for convex optimization based on the Python programming language. It can be used with the interactive Python interpreter, on the command line by executing Python scripts, or integrated in other software via Python extension modules. Its main purpose is to make the development of software for convex optimization applications straightforward by building on Python's extensive standard library and on the strengths of Python as a high-level programming language. Current version includes the following features: * efficient Python classes for dense and sparse matrices (real and complex), with Python indexing and slicing and overloaded operations for matrix arithmetic * an interface to most of the double-precision real and complex BLAS * an interface to LAPACK routines for solving linear equations and least-squares problems, matrix factorizations (LU, Cholesky, LDLT and QR), symmetric eigenvalue and singular value decomposition, and Schur factorization * an interface to the fast Fourier transform routines from FFTW * interfaces to the sparse LU and Cholesky solvers from UMFPACK and CHOLMOD * routines for linear, second-order cone, and semidefinite programming problems * routines for nonlinear convex optimization * interfaces to the linear programming solver in GLPK, the semidefinite programming solver in DSDP5, and the linear, quadratic and second-order cone programming solvers in MOSEK * a modeling tool for specifying convex piecewise-linear optimization problems. A platform-independent source package and a binary Windows installer are available from the Download section. CVXOPT is also available precompiled for the major platforms: * Debian Linux * Ubuntu Linux * Fedora Linux * Python(x,y) for Microsoft Windows CVXOPT is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY.

Abbreviations: CVXOPT

Synonyms: CVXOPT - Python Software for Convex Optimization

Resource Type: software resource

Keywords: convex optimization, python

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: CVXOPT - Python Software for Convex Optimization

Resource ID: SCR_002918

Alternate IDs: nif-0000-30018

Record Creation Time: 20220129T080216+0000

Record Last Update: 20260912T195548+0000

Ratings and Alerts

No rating or validation information has been found for CVXOPT - Python Software for Convex Optimization.

No alerts have been found for CVXOPT - Python Software for Convex Optimization.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Wang Q, et al. (2014) Diffusion tensor image registration using hybrid connectivity and tensor features. Human brain mapping, 35(7), 3529.

Jurica P, et al. (2009) OMPC: an Open-Source MATLAB-to-Python Compiler. Frontiers in neuroinformatics, 3, 5.