

MUESLI includes third-party subprograms or libraries:

For the FML part:

src/fml_sparse/util

name: A basic tool-kit for sparse matrix computations.
library name: **SPARSKIT2** (parts only)
version: 2 (refactored and modified by É. Canot) – 2021-06-01
author: [Yousef Saad <saad@cs.umn.edu>](mailto:Yousef.Saad@cs.umn.edu)
URL: <http://www-users.cs.umn.edu/~saad/software/SPARSKIT/index.html>
license: *GNU LGPL*
see also: src/fml_sparse/util/README

src/misc/ACM/680

name: Complex error function.
library name: **ALGORITHM 680**, COLLECTED ALGORITHMS FROM ACM (ACM TOMS 16 (1990) 47).
authors: G.P.M. Poppe; C.M.J. Wijers.
URL: <http://calgo.acm.org/>
license: *ACM Software License Agreement*
see also: src/misc/ACM/680/README

src/misc/ACM/782

name: Computing Rank-Revealing QR Factorizations of Dense Matrices.
library name: **ALGORITHM 782**, COLLECTED ALGORITHMS FROM ACM (ACM TOMS 24,2 (Jun 1998) 254).
authors: Christian H. Bischof; Gregorio Quintana-Orti.
URL: <http://calgo.acm.org/>
license: *ACM Software License Agreement*
see also: src/misc/ACM/680/README

src/misc/arpack

name: Arnoldi Package: collection of Fortran77 subroutines designed to solve large scale eigenvalue problems.
library name: **ARPACK-NG**
version: 3.5.0 – 2017-05-15
authors: [Danny Sorensen <sorensen@caam.rice.edu>](mailto:sorensen@caam.rice.edu) ;
[Richard Lehoucq <rblehou@sandia.gov>](mailto:rblehou@sandia.gov) ;
[Chao Yang <cyang@lbl.gov>](mailto:cyang@lbl.gov) ;
[Kristi Maschhoff <kristyn@tera.com>](mailto:kristyn@tera.com) ;
[Sylvestre Ledru <sylvestre@debian.org>](mailto:sylvestre@debian.org) ;
Allan Cornet.
URL: <https://github.com/opencollab/arpack-ng>
license: *BSD Software License*
see also: src/misc/arpack/{CHANGES, COPYING, README, VERSION}

src/misc/crc32

name: Adler-32
library name: **(not applicable)**
author: G. Adam Stanislav (from Mark Adler algorithm, 1995)
URL: <http://en.wikipedia.org/wiki/Adler-32>
license: *Creative Commons Attribution-ShareAlike License (Wikipedia)*
see also: src/misc/crc32/crc32_adler.README

src/misc/GFT

name: Generic Fourier Transform
library name: **GFT**
author: [Jalel Chergui <Jalel.Chergui@idris.fr>](mailto:Jalel.Chergui@idris.fr)
URL: <http://www.idris.fr/data/publications/GFT>
license: *GNU GPL*
see also: src/misc/GFT/README

src/misc/iso_varying_string

name: ISO Varying String Fortran 90 module
library name: **iso_varying_string**
author: [Rich Townsend <rhdt@star.ucl.ac.uk>](mailto:rhdt@star.ucl.ac.uk)
URL: http://www.fortran.com/iso_varying_string.f95
license: *GNU LGPL*
see also: src/misc/iso_varying_string/README

src/misc/minpack

name: Minimization package
library name: **minpack**
authors: B. S. Garbow; K. E. Hillstom; J. J. Moré.
URL: <http://www.netlib.org/minpack>
license: *public domain*
see also: src/misc/minpack/README

src/misc/slatec

name: SLATEC Common Mathematical Library (actually a subpart)
library name: **SLATEC**
version: 4.1 – (July 1993, last fixed Nov. 1999)
authors: US Government research laboratories
URL: <http://www.netlib.org/slatec/>
license: *public domain*
see also: src/misc/slatec/README

src/misc/suitesparse

name: Collection of software packages for Sparse Matrices.
library name: **SuiteSparse**
version: 5.4.0 – 2018-12-28
author: [Tim Davis <davis@cise.ufl.edu>](mailto:davis@cise.ufl.edu)
URL: <http://faculty.cse.tamu.edu/davis/suitesparse.html>
license: *GNU LGPL* or *GNU GPL* (depending of the package)
see also: src/misc/suitesparse/{versions, README}

src/misc/suitesparse/METIS

name: Serial Graph Partitioning and Fill-reducing Matrix Ordering
library name: **METIS**
version: 5.1.0 – 2013-03-29
authors: [George Karypis and Vipin Kumar <metis@cs.umn.edu>](mailto:metis@cs.umn.edu)
URL: <http://glaros.dtc.umn.edu/gkhome/metis/metis/overview>
license: see src/misc/suitesparse/METIS/LICENSE.txt
see also: src/misc/suitesparse/METIS/README.txt

src/misc/delaunay/2d

name: A Two-Dimensional Quality Mesh Generator and Delaunay Triangulator.
library name: **Triangle**
version: 1.6 – 2005-07-28
author: [Jonathan Richard Shewchuk <jrs@cs.berkeley.edu>](mailto:jrs@cs.berkeley.edu)
URL: <http://www.cs.cmu.edu/~quake/triangle.html>
license: see src/misc/delaunay/2d/License.txt
see also: src/misc/delaunay/2d/README

src/misc/delaunay/3d

name: 3D Delaunay triangulation.
library name: **tetgen**
version: 1.6.0 – 2020-08-31
author: Hang Si
URL: <http://www.tetgen.org>
license: *GNU AFFERO GPL*
see also: src/misc/delaunay/3d/README

src/misc/RngStreams

name: Multiple independent streams of pseudo-random numbers.
library name: **RngStreams**
version: 1.0.1 – 2011-08-14
authors: [Pierre L'Ecuyer and Richard Simard <lecuyer@iro.UMontreal.ca>](mailto:lecuyer@iro.UMontreal.ca)
URL: <http://www.iro.umontreal.ca/~simardr/indexe.html>
license: *GNU GPL*
see also: src/misc/RngStreams/README

src/misc/randlib

name: Random Number Generation
library name: **Randlib (one routine only: ignpoi)**
author: Barry W. Brown
URL: <https://biostatistics.mdanderson.org/SoftwareDownload/SingleSoftware/Index/27>
license: *Public domain*

src/misc/voronoi/2d

name: 2D Voronoi diagram
library name: **JC_VORONOI (header only: jc_voronoi.h)**
version: 0.9.0 (modified by É. Canot) – 2024-10-05
author: Matthias Westerdahl
URL: <https://github.com/JCash/voronoi>
license: *MIT*

For the FGL part:

src/fgl/mfplot

name: Tim Pearson Graphics Subroutine Library
library name: **PGPLOT**
version: 5.2.2 (modified by É. Canot) – 2025-10-29
author: [Tim Pearson <tjp@astro.caltech.edu>](mailto:tjp@astro.caltech.edu)
URL: <http://www.astro.caltech.edu/~tjp/pgplot/>
license: see src/fgl/mfplot/PGPLOT_License.txt
see also: src/fgl/mfplot/README
note: *This package has been so modified that today we could consider it as an own MUESLI part, renamed MFPGLOT.*

src/fgl/mfplot/grfont

name: Hershey fonts
library name: **(not applicable)**
version: (not applicable)
author: James Hurt
address: Cognition, Inc.; 900 Technology Park Drive; Billerica, MA 01821; USA
license: see src/fgl/mfplot/grfont/Hershey-fonts-license.txt

src/fgl/mfplot/src/sys

name: Deflate
library name: **BMEPS**
version: (dated 2000, but BMEPS has been changed for BMPP somewhere in 2018)
author: Dirk Krause, Schmalkalden / Germany
URL: <http://dktools.sourceforge.net/bmpp.html>
license: *GNU LGPL*

src/fgl/mfplot/fontconfig

name: Adobe Font Metrics
library name: **(not applicable)**
version: 2.0 and 4.1
URL: <http://partners.adobe.com/public/developer/font/index.html>
license: see src/fgl/mfplot/fontconfig/Adobe-License.txt

src/fgl/mfplot/src/xft_EC

name: X FreeType library
library name: **libXft**
version: 2.3.2 (modified by É. Canot) -- 2021-11-09
URL: <https://gitlab.freedesktop.org/xorg/lib/libXft/>
license: see src/fgl/mfplot/src/xft_EC/COPYING
note: *This library has been modified to take into account inclined strings.*

src/fgl/mfplot/src/TriStream

name: TriStream – Trace streamlines on a triangular mesh using nodal velocities
library name: **(not applicable – Matlab script)**
version: (not applicable)
URL: <https://fr.mathworks.com/matlabcentral/fileexchange/11278-tristream>
license: no license known. See src/fgl/mfplot/src/TriStream/README
note: *The original Matlab script has been improved (better reliability) and translated using Muesli routines.*

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<http://www.dreamstime.com/free-photos>

Credits have been inserted at the bottom of the third page of each PDF.

They have been officially downloaded by É. Canot on Mon, 13th of Feb., 2012.

The license type for using these four photos can be found inside the document:

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