

MATHS SOFTWARE GUIDE

The following list will help you if you wish to find software. You may also obtain information on known and new software from websites such as Dr. Dobb's Portal, from articles published by the *American Mathematical Society* (see also its website at www.ams.org), the *Society for Industrial and Applied Mathematics* (SIAM, at www.siam.org), the *Association for Computing Machinery* (ACM, at www.acm.org), or the *Institute of Electrical and Electronics Engineers* (IEEE, at www.ieee.org). Consult also your library, computer science department, or mathematics department.

GAMS (Guide to Available Mathematical Software). Website at <http://gams.nist.gov>. Online cross-index of software development by NIST.

IMSL (International Mathematical and Statistical Library). Visual Numerics, Inc., Houston, TX. Telephone: 1-800-222-4675 or (713) 784-3131; website at www.vni.com. Mathematical and statistical FORTRAN routines with graphics.

LAPACK. FORTRAN 77 routines for linear algebra. This software package supersedes LINPACK and EISPACK. You can download the routines from www.netlib.org/lapack. The LAPACK User's Guide is available at www.netlib.org.

LINPACK see LAPACK

Maple. Waterloo Maple, Inc., Waterloo, ON, Canada. Telephone: 1-800-267-6583 or (519) 747-2373; website at www.maplesoft.com.

Maple Computer Guide. For Advanced Engineering Mathematics, 10th edition. By E. Kreyszig and E. J. Norminton. John Wiley and Sons, Inc., Hoboken, NJ. Telephone: 1-800-225-5945 or (201) 748-6000.

Mathcad. Parametric Technology Corp. (PTC), Needham, MA. Website at www.ptc.com.

Mathematica. Wolfram Research, Inc., Champaign, IL. Telephone: 1-800-965-3726 or (217) 398-0700; website at www.wolfram.com.

Mathematica Computer Guide. For Advanced Engineering Mathematics, 10th edition. By E. Kreyszig and E. J. Norminton. John Wiley and Sons, Inc., Hoboken, NJ. Telephone: 1-800-225-5945 or (201) 748-6000.

Matlab. The MathWorks, Inc., Natick, MA. Telephone: (508) 647-7000; website at www.mathworks.com.

NAG. Numerical Algorithms Group, Inc., Lisle, IL. Telephone: (630) 971-2337; website at www.nag.com. Numeric routines in FORTRAN 77, FORTRAN 90, and C.

NETLIB. Extensive library of public-domain software. See at www.netlib.org.

NIST. National Institute of Standards and Technology, Gaithersburg, MD. Telephone: (301) 975-6478; website at www.nist.gov. For Mathematical and Computational Science Division telephone: (301) 975-3800. See also <http://math.nist.gov>.

Numerical Recipes. Cambridge University Press, New York, NY. Telephone: 1-800-221-4512 or (212) 924-3900; website at www.cambridge.org/us. Book, 3rd ed. (in C++) see App. 1, Ref. [E25]; source code on CD ROM in C++, which also contains old source code (but not text) for (out of print) 2nd ed. C, FORTRAN 77, FORTRAN 90 as well as source code for (out of print) 1st ed. To order, call office at West Nyack, NY, at 1-800-872-7423 or (845) 353-7500 or online at www.nr.com.