

Languages, S(14-18), C, P, L. *C++ for Scientists and Engineers*. James T. Smith. McGraw-Hill, 1991, xii + 322 pp, \$29.95 (P). [ISBN: 0-07-059180-6] Describes design, construction, and use of a numerical analysis software toolkit written in C++, Version 2.0 making essential use of the object-oriented features. Object-oriented programming allows abstractions at a level which helps to make the numerical application programs look like the mathematics they represent. Describes in detail implementation of real and complex arithmetic, elementary functions, vector and matrix algebra, polynomial algebras, solutions of transcendental and polynomial equations, solutions of linear systems of equations, eigenvalue problems, and solutions of non-linear systems of equations. MK

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