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Abstract

This book intends to present Maxima and Octave, which represent the two main categories of free mathematical software: computational/symbolic algebra systems and numerical calculations software. Maxima and Octave are offered for free and distributed under the GNU (General Public License), and that is one of the criteria for them, as presented in this book. Mathematical software has been recognised as essential in scientific calculations and is widely spread in various forms. It provides tools for calculations and teaching, aiming

at a better understanding of mathematical concepts. This book is aimed at undergraduate students who want to have a useful tool for complex scientific calculations. The material presented follows for the most part the material usually taught in introductory-general mathematics courses in Greek universities. Thus, units from linear algebra, analysis of one or more variables, differential equations and topics in numerical analysis are covered, all of them in the light of the use of appropriate mathematical software.

