

MathLibre 2013

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<http://www.mathlibre.org/>

Introduction

MathLibre is a project to archive free mathematical software and free mathematical documents and offer them on Live Linux system. MathLibre Project is the direct descendant of KNOPPIX/Math Project. It provides a desktop for mathematicians that can be set up easily and quickly.

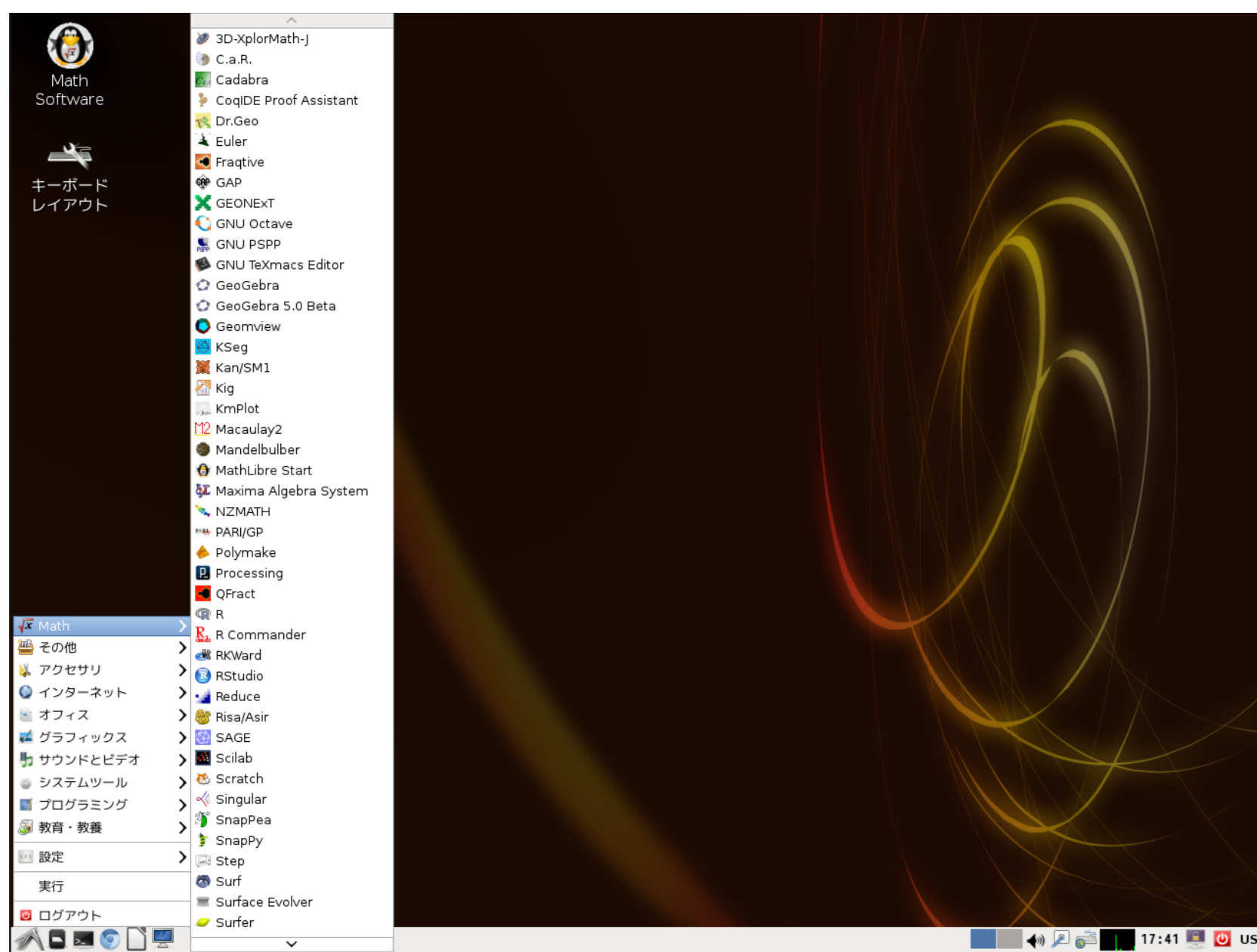


Figure 1: MathLibre 2013 desktop.

Our system includes \TeX (\LaTeX 2 ϵ , $\text{\AMS-}\text{\LaTeX}$, $\text{\Bib}\text{\TeX}$, beamer, ...), LibreOffice, Iceweasel(Mozilla Firefox), Chromium browser(Google Chrome), GNU Emacs, Kile, \TeX works, \TeX maker and \TeX studio. The DVD includes many mathematical software systems or libraries with documents, such as 3D-XplorMath-J, 4ti2, BLAS, Cadabra, C.a.R., cca, cddlib, CoCoA, Coq, Dr. Geo, Eukleides, freefem++, Fraqtive, GAP, GeoGebra, Geomview, GEONExT, gfan, GeoProof, GNU R, Gnuplot, Kan/sm1, Kig, KNOT, KSEG, LAPACK, LiE, Macaulay2, math-polyplot, Maxima, Normaliz, NZMATH, Octave, OpenXM, PARI/GP, Polymake, QFract, Reduce, Risa/Asir, SAGE, Scilab, Singular, skeleton, SnapPea, surf, surfer, surfex, Surface Evolver, XaoS, Yacas, and Yorick, ...

How to run the live system (Windows machine or PC/AT compatibles)

This DVD contains a lot of documents and packages of mathematical software systems. Once you run the live system, you can experience a wonderful world of mathematical software systems without needing to make any installations yourself. This is a bootable DVD. If you can boot from the DVD, then please reboot. The live system will be ready.

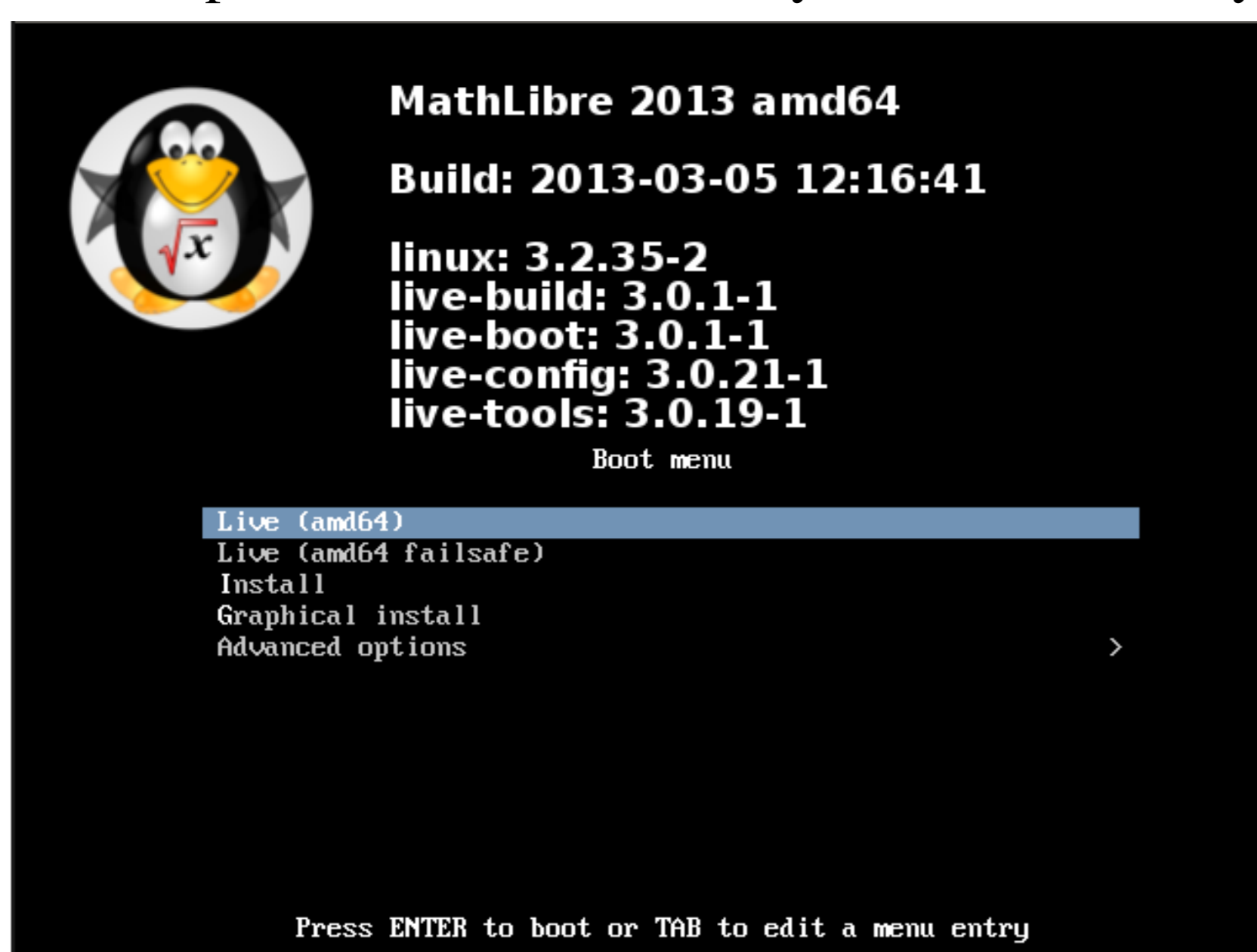


Figure 2: MathLibre is booting.

If you prepare over 8GB USB flashdisk, you can easily make USB bootable system with your home directory. In order to create a bootable USB flashdisk, Please download the script "mkusbmath" from <https://github.com/knxm/mathlibre/>. The personal settings and additionally installed programs saved in the persistence partition. They are very convenient and useful systems for daily research use.

If your machine is not bootable, or has very special hardware devices which MathLibre cannot drive, we recommend you download the "VMware Player". Once you have installed the VMware Player, you can start our live system from this DVD or from our preinstalled virtual machine (faster) for VMware Player. The instructions for installing and using the virtual machine can be found in <http://www.math.kobe-u.ac.jp/vmkm/> Note that when you install the VMware Player, the Norton internet security or equivalent software systems should be turned off.

Mathematical software systems

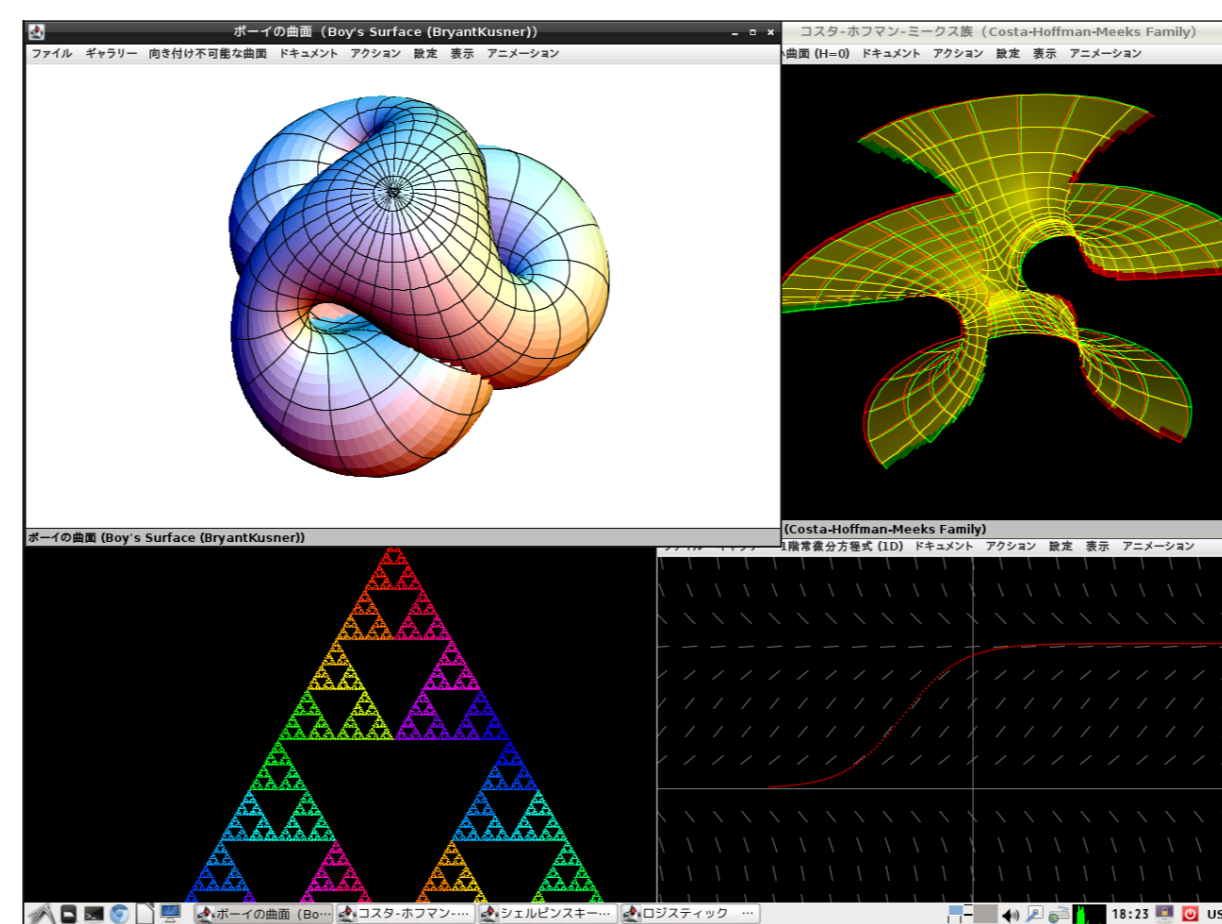


Figure 3: 3D-XplorMath-J

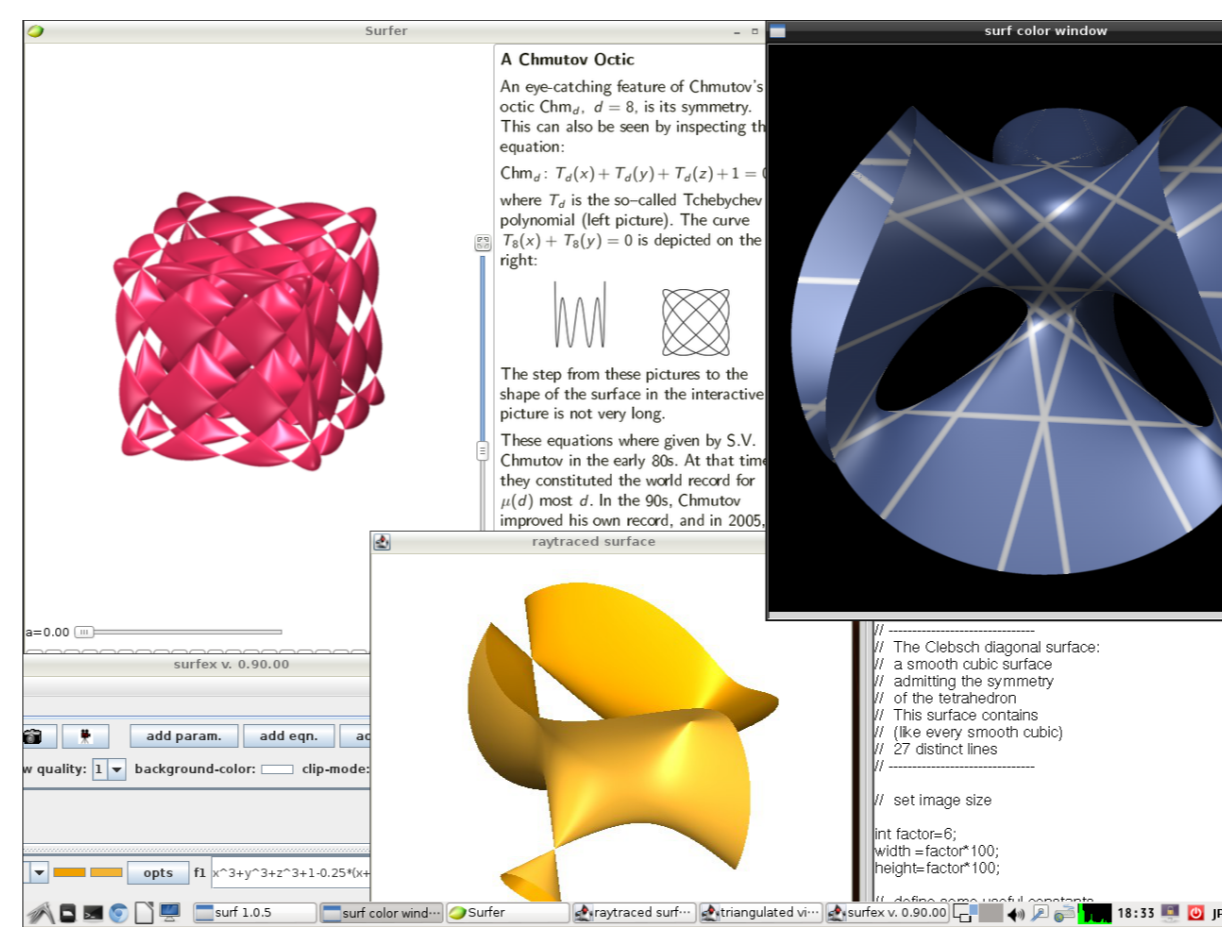


Figure 4: Surf family

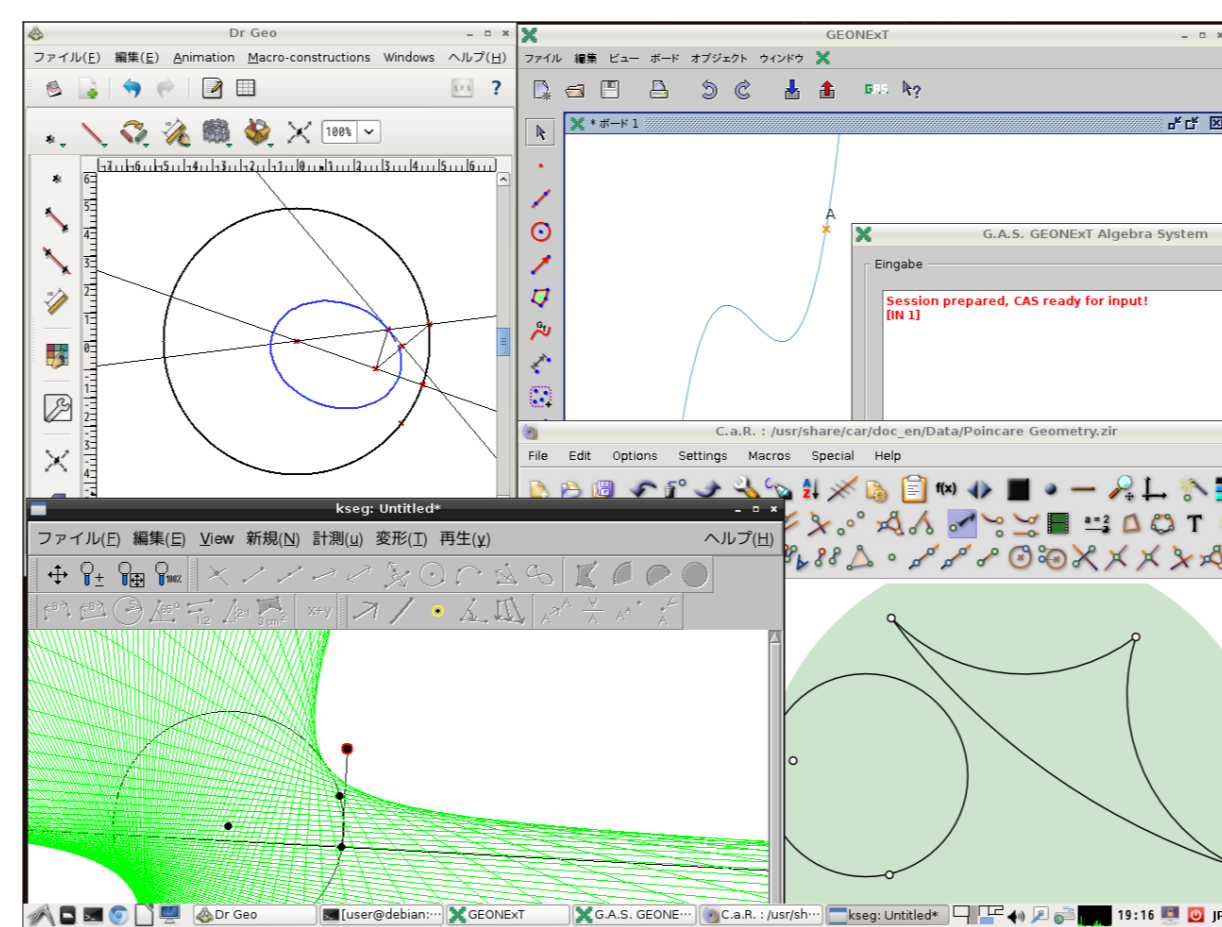


Figure 5: Dynamic Geometry Software

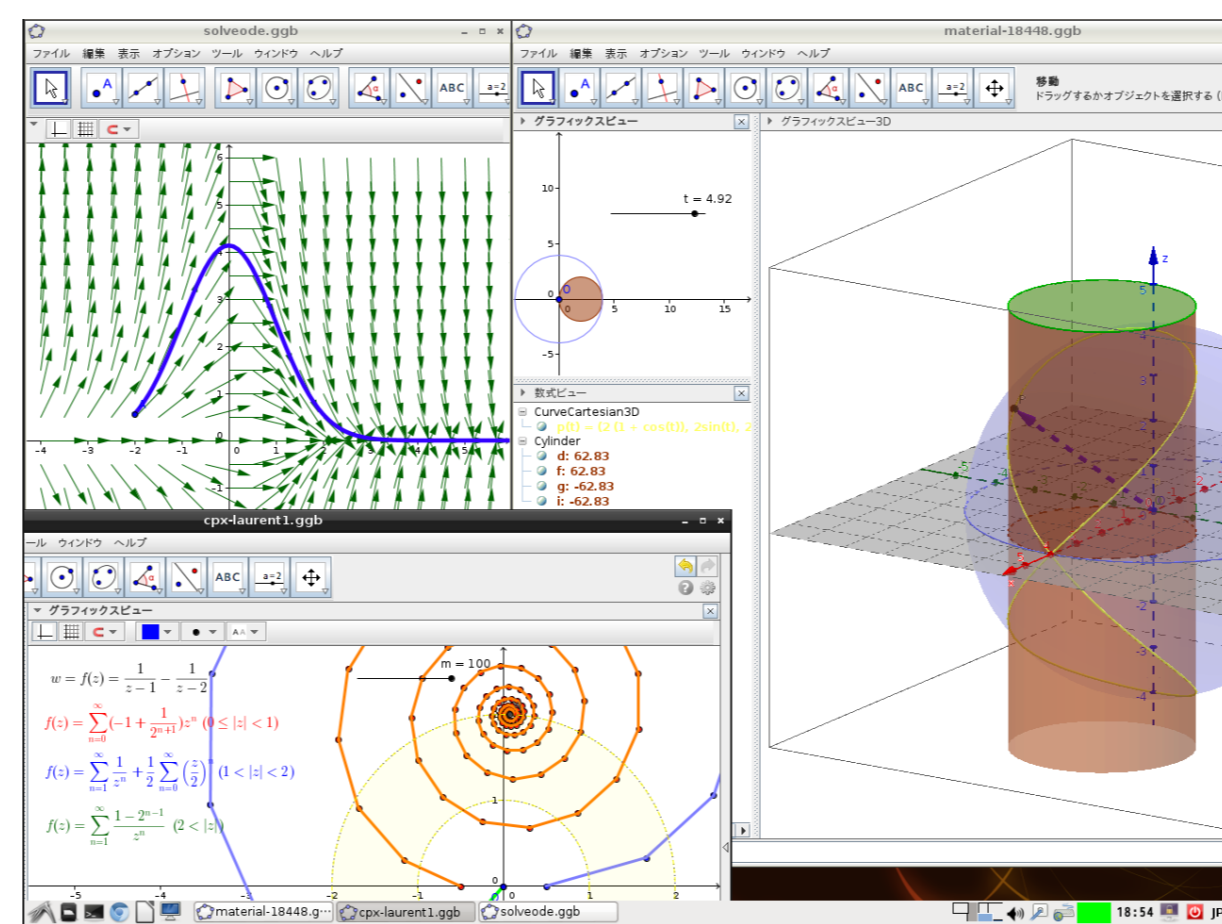


Figure 6: GeoGebra4 and GeoGebra5 β

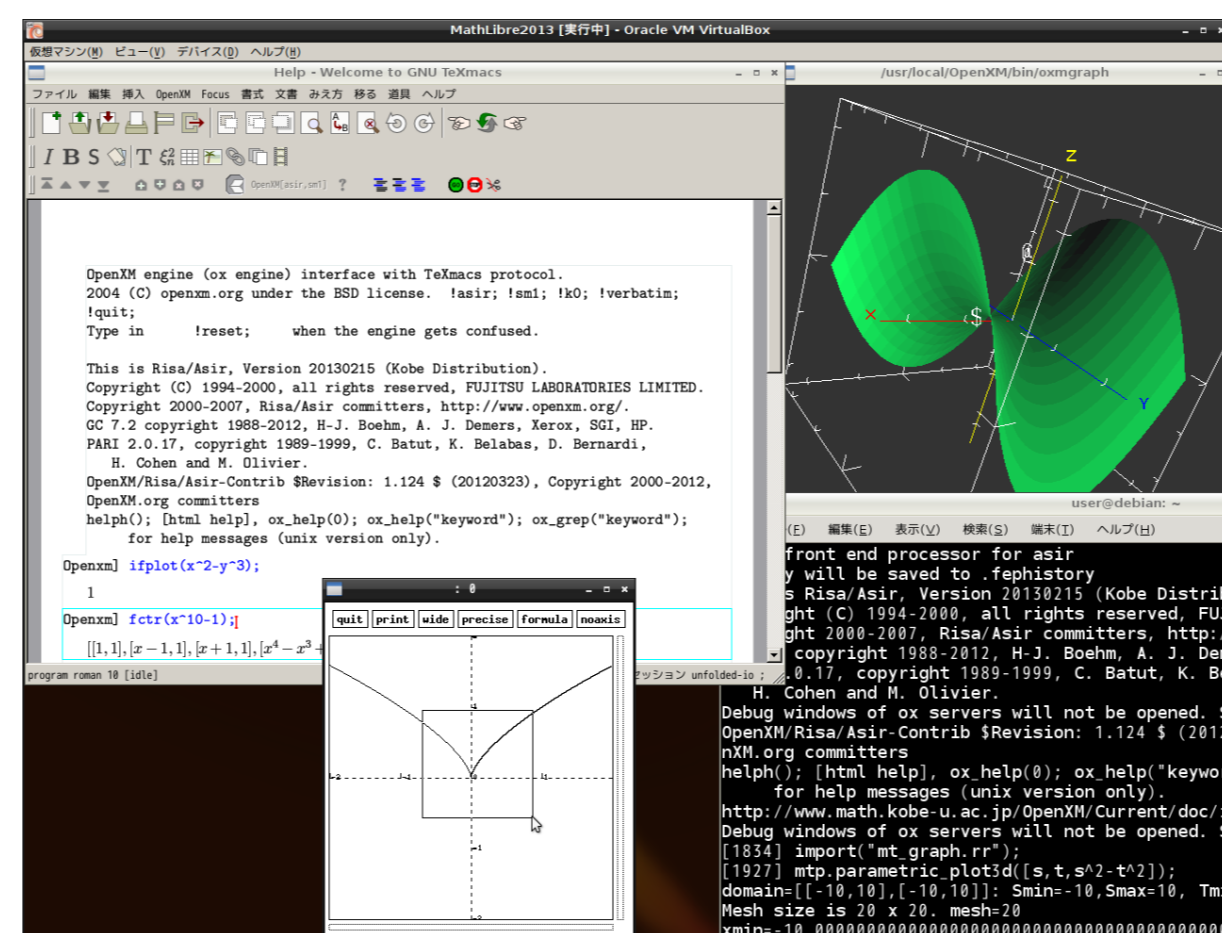


Figure 7: Risa/Asir(OpenXM)

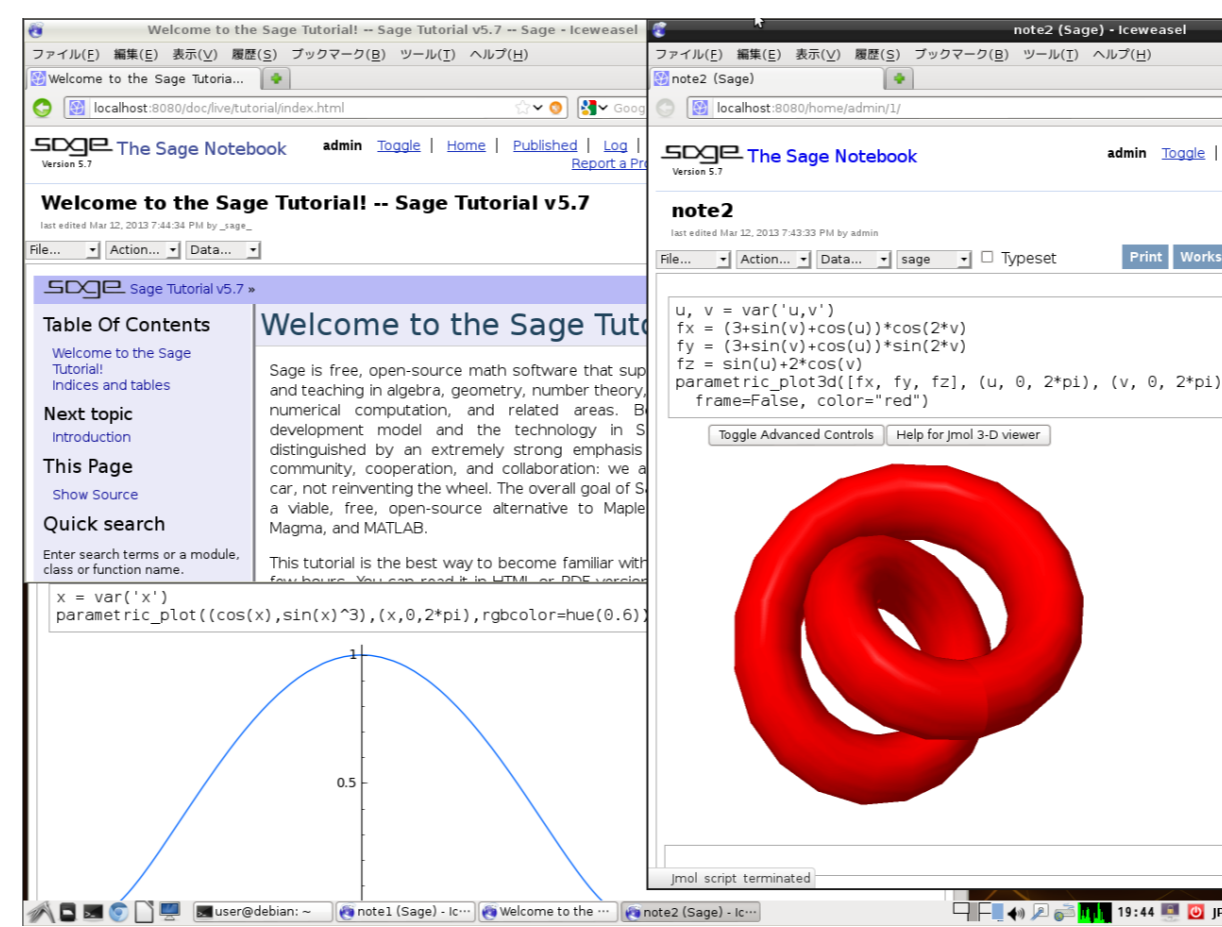


Figure 8: SAGE notebook

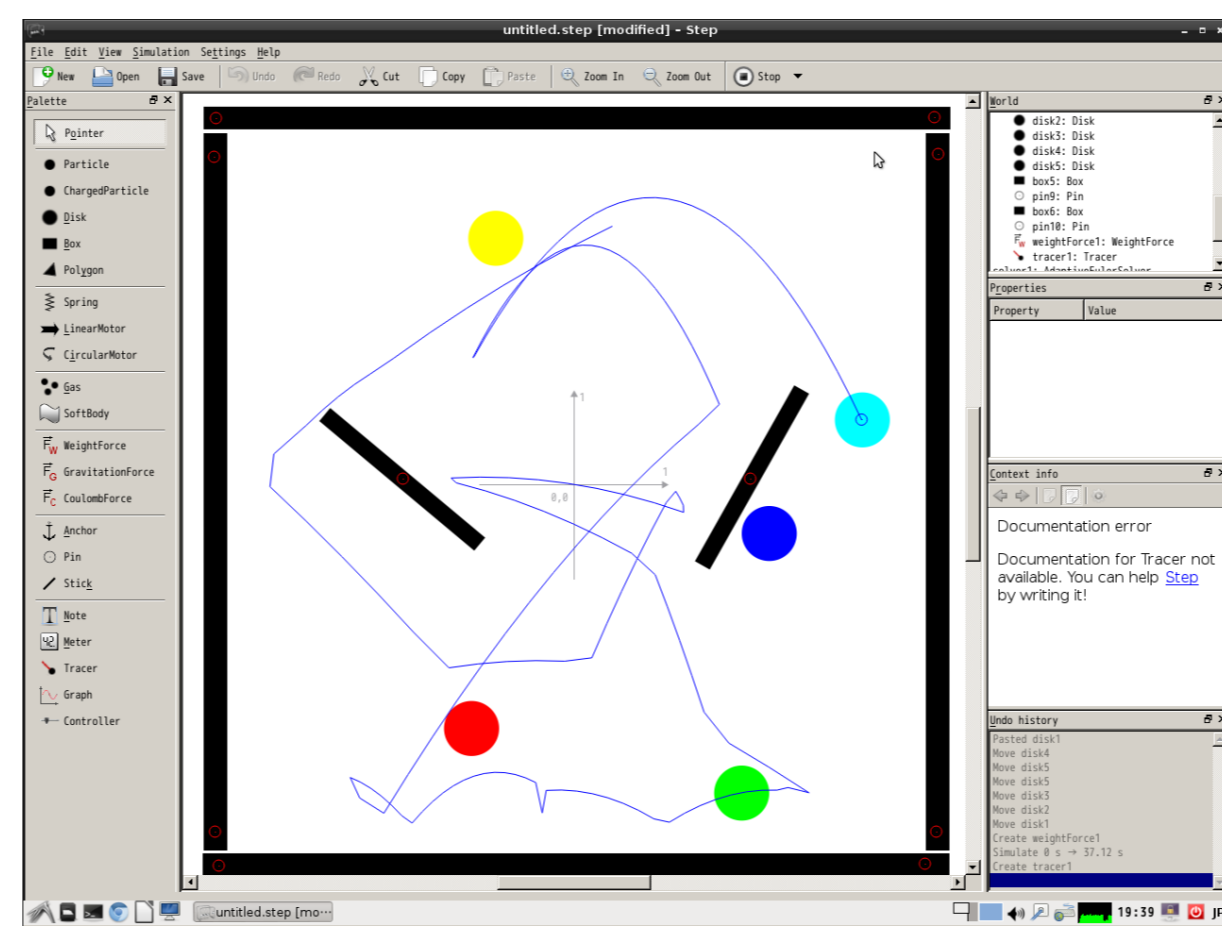


Figure 9: Step: Physics Simulator

How to run the live system (IntelMac)

This DVD contains a lot of documents and packages of mathematical software systems. Once you run the live system, you can experience a wonderful world of mathematical software systems without needing to make any installations yourself. In order to run the live system, we recommend to use the PC emulator "VMware Fusion" or "VirtualBox". Note that you need to set the "energy save" to "better performance" in the "system preferences". Otherwise, the parallel virtual machine will not return after being in sleep mode.

FAQ (frequently asked questions)

Q. Where can I find documents of mathematical software systems.

A. Click "Math software" on the desktop of the live system. You can find "MathLibre Start" icon, it will show you a list of software systems and documents.

Q. After the power is turned off, I lose all documents which I wrote.

A. If you boot from the DVD, all documents are stored in the RAM. Then, you will lose all your data after the power is turned off. In order to save data permanently, you need to copy them to a USB memory or to the hard disk. Please visit the "Debian Live" site for more details. If you boot from the VMware image in the VMware Player, all documents which you wrote will be stored permanently in your harddisk.

Q. How do I copy documents to other machines?

A. There are numerous ways (1) sending documents as an attachment of a web mail (2) using the "scp" command (3) using USB drive, (4) using DropBox, a free network storage service.

Q. Can I boot this DVD on my Mac?

A. If the CPU is Intel, we can boot DVD with "C" key. But if the CPU is the PowerPC, unfortunately, we cannot.

Q. How do I install the MathLibre to my hard disk like other linux systems?

A. If you are an expert, please select the boot menu "Install" or "Graphical Install". If you are not expert, we recommend you do not try this and instead use the preinstalled image file for the VMware Player. It is very easy and comfortable.

Q. The computer starts from the DVD, but the screen becomes black and the system hangs. What should I do?

A. Our system does not use your hard disk unless you mount it. Therefore, you may turn off your power switch and it will cause no damage to your computer.

Q. Can I use other language?

A. You can download other language edition from our ftp sites. For example, Japanese, English, Simplified Chinese, Korean and Traditional Chinese are supported.

Q. How to start the input method?

A. You will start input method with Ctrl+Space.

Q. Can I use old computer?

A. No, MathLibre is using amd64 Linux kernel, we can't boot with some processors older than Pentium4.

Q. What is the password for "user"?

A. Debian Live is using the password "live" for the account "user".

Q. What is the password for "root"?

A. Please use the command "sudo" or "sudo -s".