



AIMS Desktop

Jonathan Carter

Debconf 15, Heidelberg, Germany
2015-08-21



AIMS

African Institute for
Mathematical Sciences
SOUTH AFRICA

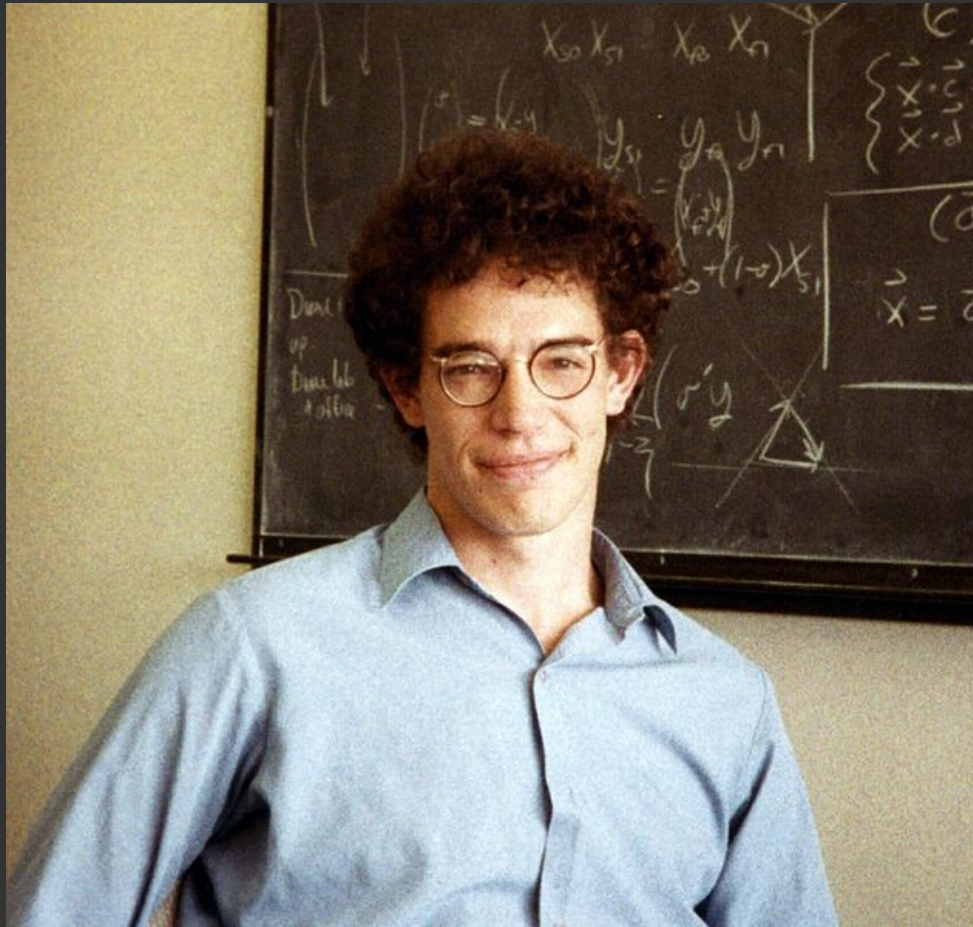
ABOUT

The African Institute for Mathematical Sciences



AIMS

African Institute for
Mathematical Sciences
SOUTH AFRICA



Quick Facts

South African Physicist

Director of Perimeter Institute

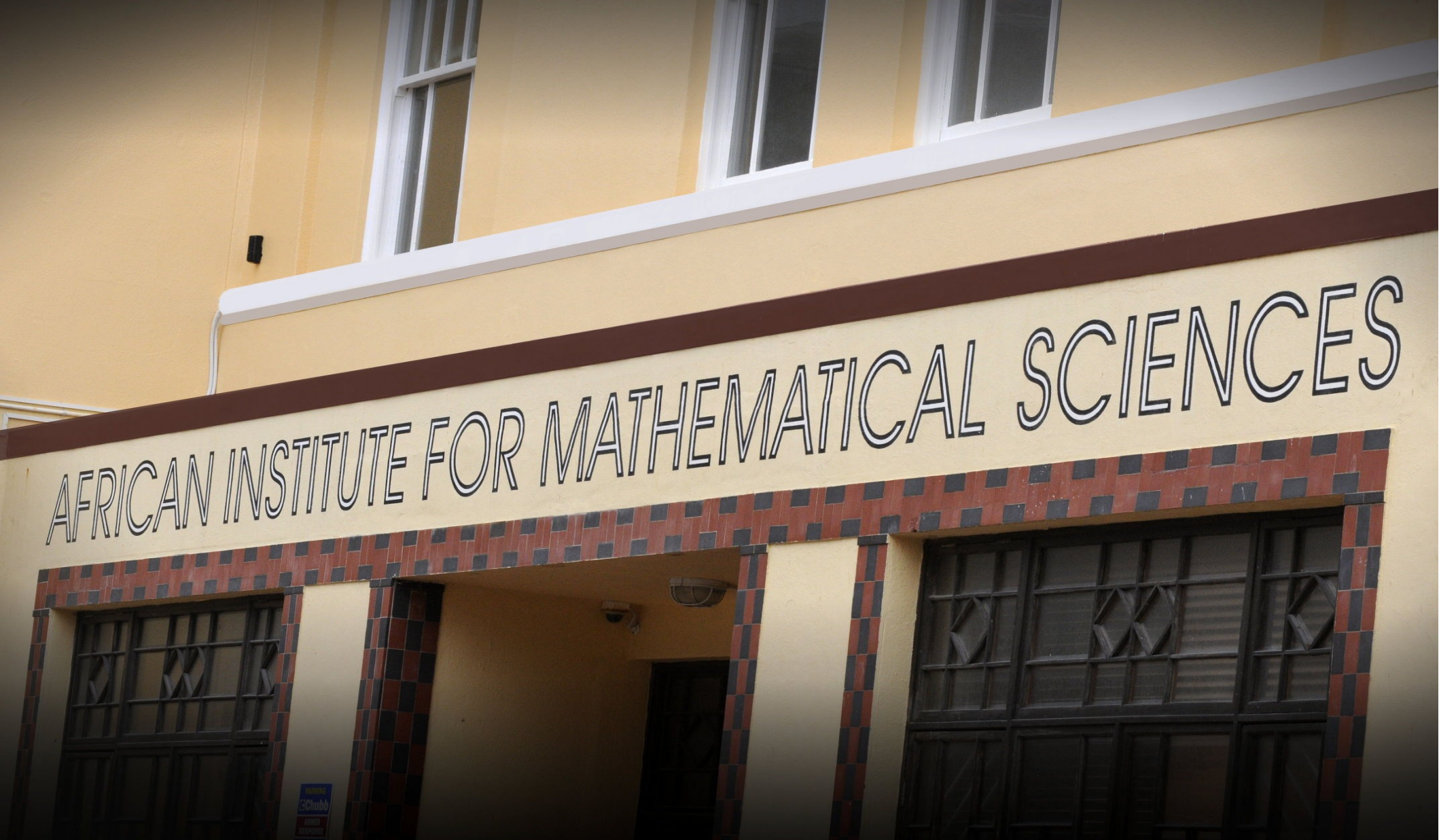
Family fled South Africa after standing against Apartheid regime in 1980's

Worked with Stephan Hawking on Hawking-Turok constant, among other scientific achievements

Founded AIMS in 2003

Prof. Neil Turok

https://en.wikipedia.org/wiki/Neil_Turok



AIMS

African Institute for
Mathematical Sciences
SOUTH AFRICA





AIMS

African Institute for
Mathematical Sciences
SOUTH AFRICA

Our students come from **42 countries**



2015

5 centres of excellence



2023

15 centres of excellence planned



**AIMS
NEI**

African Institute for
Mathematical Sciences
NEXT EINSTEIN INITIATIVE



debian

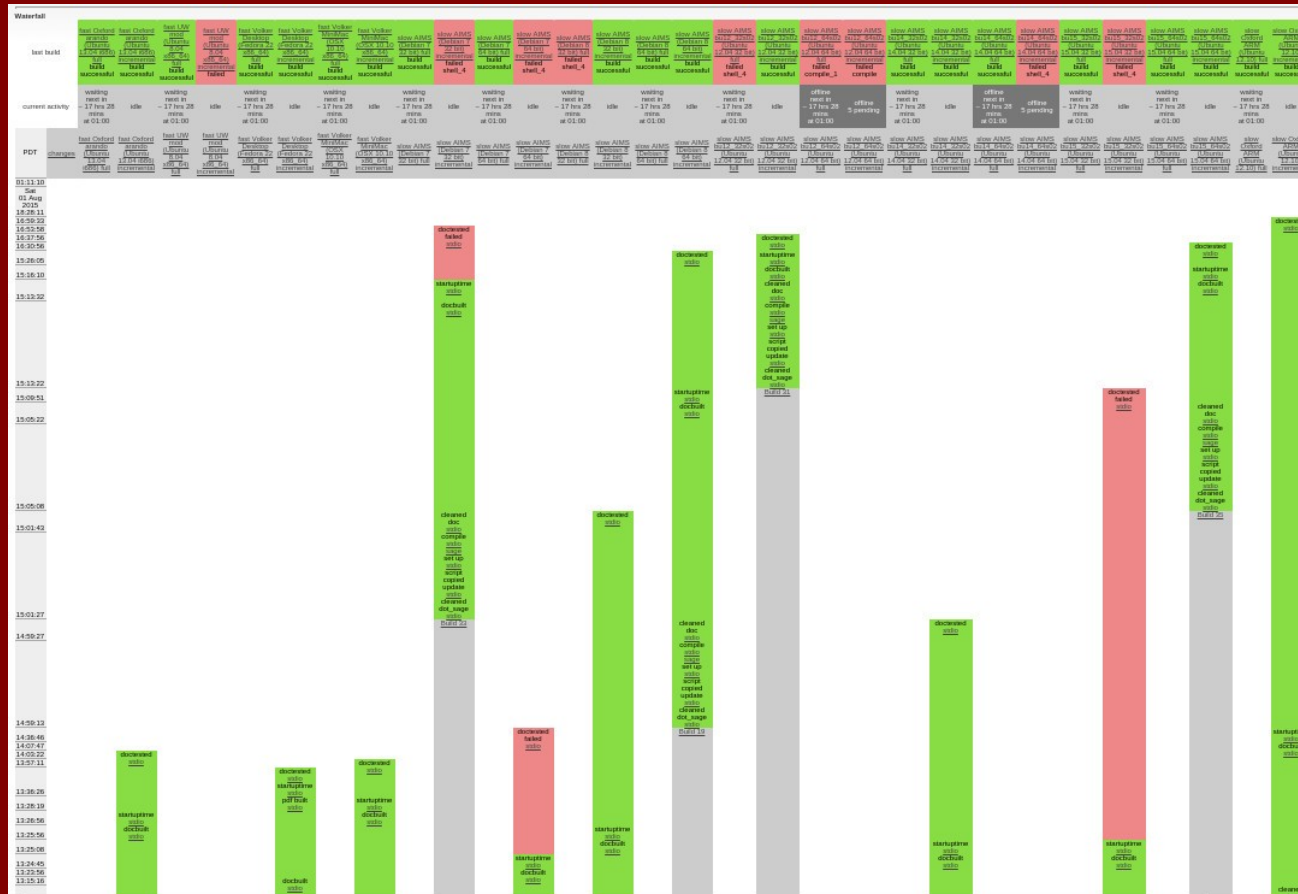
Linux from day 1

- Originally Debian testing
- Moved to Ubuntu in 2004
- Commonly used Software:
 - Python
 - Sagemath
 - R Studio
 - GNU Octave
 - Scipy
 - Spyder
 - TexMaker
- All current centres run the above
- Advocacy work remains an ongoing



Jan Groenewald
IT Manager, AIMS South Africa

Sage Math – Buildbot network



Auto builds for

Debian 7
Debian 8
Ubuntu 12.04 LTS
Ubuntu 14.04 LTS
Ubuntu 15.04

32bit + 64 bit variants

Sage Math 6.8 recently released.

AIMS team maintains binary packages in Launchpad PPA.

"The compilation of Sage 6.8 went very smoothly on every currently supported Debian and Ubuntu versions in both 32 and 64 bits (16 possible combinations), for the first time all ptestlong passed without having to re-test expect.py manually." - Thierry, SageMath release manager

Sage Math – Status in Debian



Status of Sage 6.9.beta0 in Debian

75 out of 94 standard packages are up-to-date in unstable
73 out of 94 standard packages are up-to-date in testing

		Sage	Debian	Archs
		standard		
atlas	PTS	3.10.2	3.10.2-7	13/0
boehm_gc	PTS	7.2d.p0	1:7.2d-6.4	13/0
boost_cropped	PTS	1.52.0	1.55.0.2	all
bzip2	PTS	1.0.6.20140317	1.0.6-8	13/0
cddlib	PTS	094g.p0	094g-5	13/0
cliquer	PTS	1.21.p2	1.21-1	1/0
combinatorial_designs	PTS	20140630	20140630-1	all
conway_polynomials	PTS	0.4.p0	0.4.p0+dfsg-1	all
cvxopt	PTS	1.1.7	1.1.4-1.3	13/0
cython	PTS	0.22.p5	0.22.1-1	10/0
dateutil	PTS	2.2	2.2-2	all
docutils	PTS	0.12	0.12+dfsg-1	all
ecl	PTS	13.5.1.p0	15.3.7+dfsg1-1	12/0
eclib	PTS	20150510	20150510-1	10/0
ecm	PTS	6.4.4	6.4.4-2	2/0
elliptic_curves	PTS	0.7	0.7+dfsg-1	all
fflas_ffpack	PTS	1.6.0.p1	1.6.0-1	13/0
flint	PTS	2.4.5	2.4.5-4	13/0
flintqs	PTS	20070817.p8	20070817-1	13/0
freetype	PTS	2.6	2.5.2-4	10/0
gap	PTS	4.7.8	4r7p8-1	13/0
gf2x	PTS	1.1.p1	1.1-2	13/0
gfan	PTS	0.5.p0	0.5+dfsg-5	13/0
git	PTS	2.3.0	1:2.4.6-1	all
givaro	PTS	3.7.1	3.7.2-1	13/0
glpk	PTS	4.55.p0	4.55-1	13/0
graphs	PTS	20130920.p5	20130920+dfsg-1	all
gsl	PTS	1.16	1.16+dfsg-4	13/0
iml	PTS	1.0.4p1	1.0.4-1	13/0

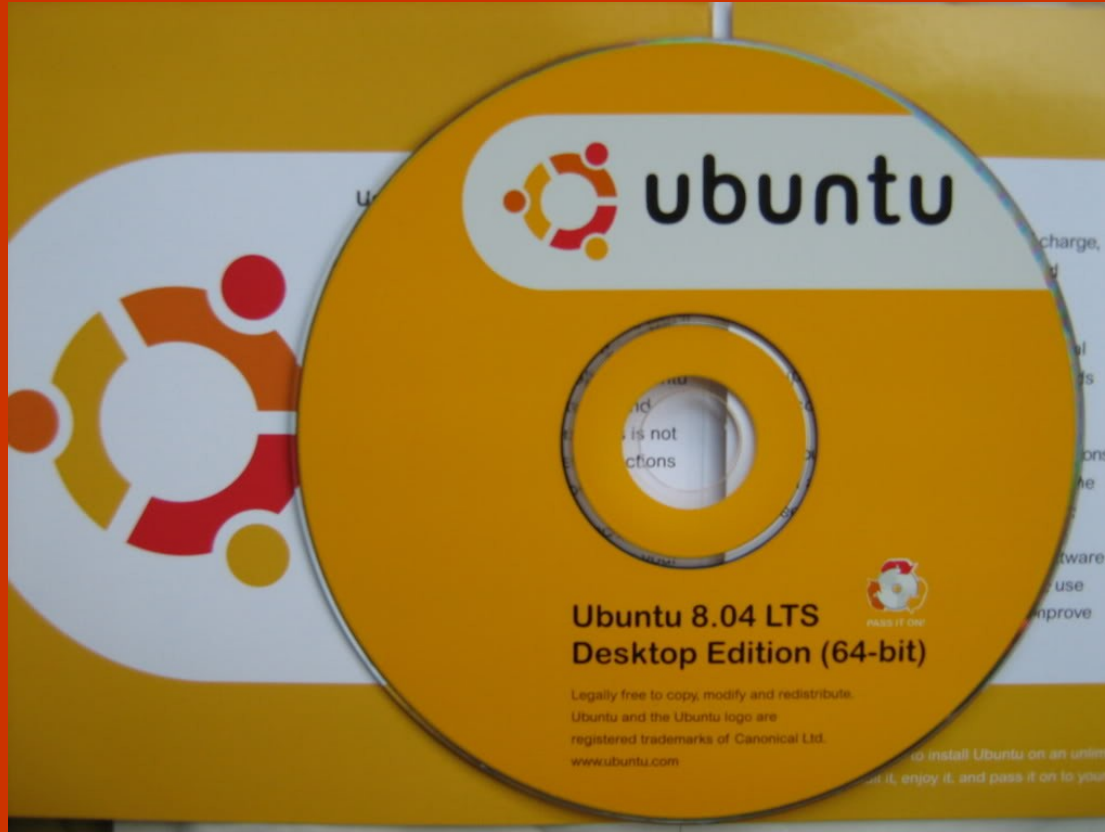
Higher major version in testing
Higher major version in unstable
Up-to-date in testing
Up-to-date in unstable
Up-to-date in experimental
Not up-to-date, lagging by a minor version
Not up-to-date, lagging by a major version
Not in Debian

- ☐ Display arch details
- ☐ Display unneeded

“74 out of 94 standard packages are up-to-date in unstable”

So why the switch to Ubuntu?

Ubuntu



Ubuntu 8.04: Legally free to copy, modify and redistribute



Windows XP: Do Not Make Illegal Copies of This Disc

<http://www.markshuttleworth.com/archives/77>

"We've already seen that with Red Hat and Novell, which essentially offer free software on proprietary terms – their “really free” editions are not certified, carry no support and receive no systematic security patching. In other words – they're beta or test versions. If you want the best that free software can deliver, a rock solid, widely certified, secure platform, from either of those companies then you have to pay, and you pay the same price whether you are Goldman Sachs or a startup in Rio de Janeiro.

That's not the vision we all share of what free software can achieve."

Ubuntu

The screenshot shows the Ubuntu Linux website homepage. At the top, there's a navigation bar with links to ubuntu, community, support, wiki, and planet. Below this, a red banner says "you are not logged in" with "log in" and "join" links. A breadcrumb trail indicates "you are here: home".

The main content area is titled "Welcome to Ubuntu Linux". It includes a paragraph explaining that "Ubuntu" is an ancient African word meaning "humanity to others" and "I am what I am because of who we all are". It also mentions that the Ubuntu Linux distribution brings the spirit of Ubuntu to the software world.

There are two orange boxes with updates. The first says: "UPDATE: The [Ubuntu CD Distribution System](#) will NOT close to new orders for Warty CDs as previously announced. Thanks to everyone who emailed to ask us to keep the free CD shipments going for Warty. See the [CD FAQ](#) for more info." The second says: "Join us at the [Ubuntu Conference](#), 5-18 December in Mataro, Spain. WATCH THE WIKI PAGE FOR CONFERENCE UPDATES."

Below these, there's a section about Ubuntu being a complete desktop Linux operating system, freely available with both community and professional support. It then discusses the Ubuntu Manifesto, which states that software should be available free of charge, that software tools should be usable by people in their local language and despite any disabilities, and that people should have the freedom to customise and alter their software in whatever way they see fit.

It then states that these freedoms make Ubuntu fundamentally different from traditional proprietary software: not only are the tools you need available free of charge, you have the right to modify your software until it works the way you want it to.

The team behind Ubuntu makes the following public commitment to its users:

- **Ubuntu will always be free of charge**, and there is no extra fee for the "enterprise edition", we make our very best work available to everyone on the same Free terms.
- Ubuntu includes the **very best in translations and accessibility infrastructure** that the Free Software community has to offer, to make Ubuntu usable by as many people as possible.
- Ubuntu is released regularly and predictably; a **new release is made every six months**. You can use the current stable release or the current development release. Each release is supported for at least 18 months.

On the right side, there's a section for "upcoming events" listing the "Ubuntu conference 5-18 Dec '04" in Mataró, Spain (Near Barcelona), 2004-12-05. Below that is a "quick links" section with links to "Download Ubuntu", "Security Notices", "FAQs and Mailing Lists", "Forums", "Local Languages", "Free CDs - Shipit", and "Ubuntu shop".

There's also a "news" section with two items: "The Ubuntu shop is open!" dated 2004-11-18, and "Workaround for sed package problem in Hoary" dated 2004-11-17. A "More..." link is provided.

At the bottom right, there's a "books" section with a link to "Design Patterns".

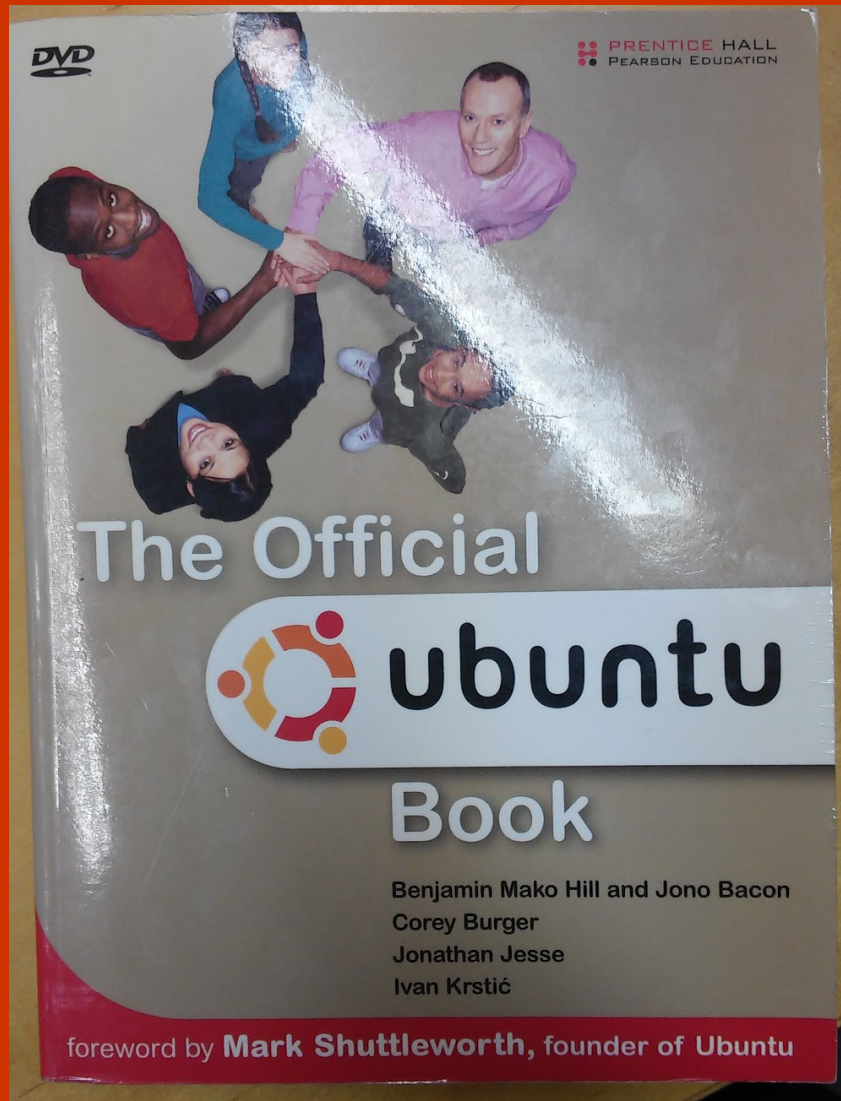
On the left side, there's a "navigation" section with links to "Home", "About Ubuntu", "Download", "Community", "Support", and "Wiki". Below that is a "donate" section with a "DONATE" button and logos for Visa and MasterCard. At the bottom left, there's a "slashdot" section with three links: "Air Force Orders Up A Custom Windows Monoculture", "Scientists Propose 'National Parks' On Mars", and "MS Seeks To Patent Education-Feedback Software". At the very bottom left, there's a link: "Do-Not-Call List Could Be Opened For Phone Spam".

"Ubuntu" is an ancient African word, meaning "humanity to others". Ubuntu also means "I am what I am because of who we all are". The Ubuntu Linux distribution brings the spirit of Ubuntu to the software world.

Ubuntu is entirely committed to the principles of open source software development; we encourage people to use open source software, improve it and pass it on.

The Ubuntu Project is a community project with participation from many volunteers, sponsored by Canonical Ltd. Canonical will not charge licence fees for Ubuntu, now or at any stage in the future. Canonical's business model is to provide technical support and professional services related to Ubuntu. Please see Paid support for further information.

Ubuntu



Foreword

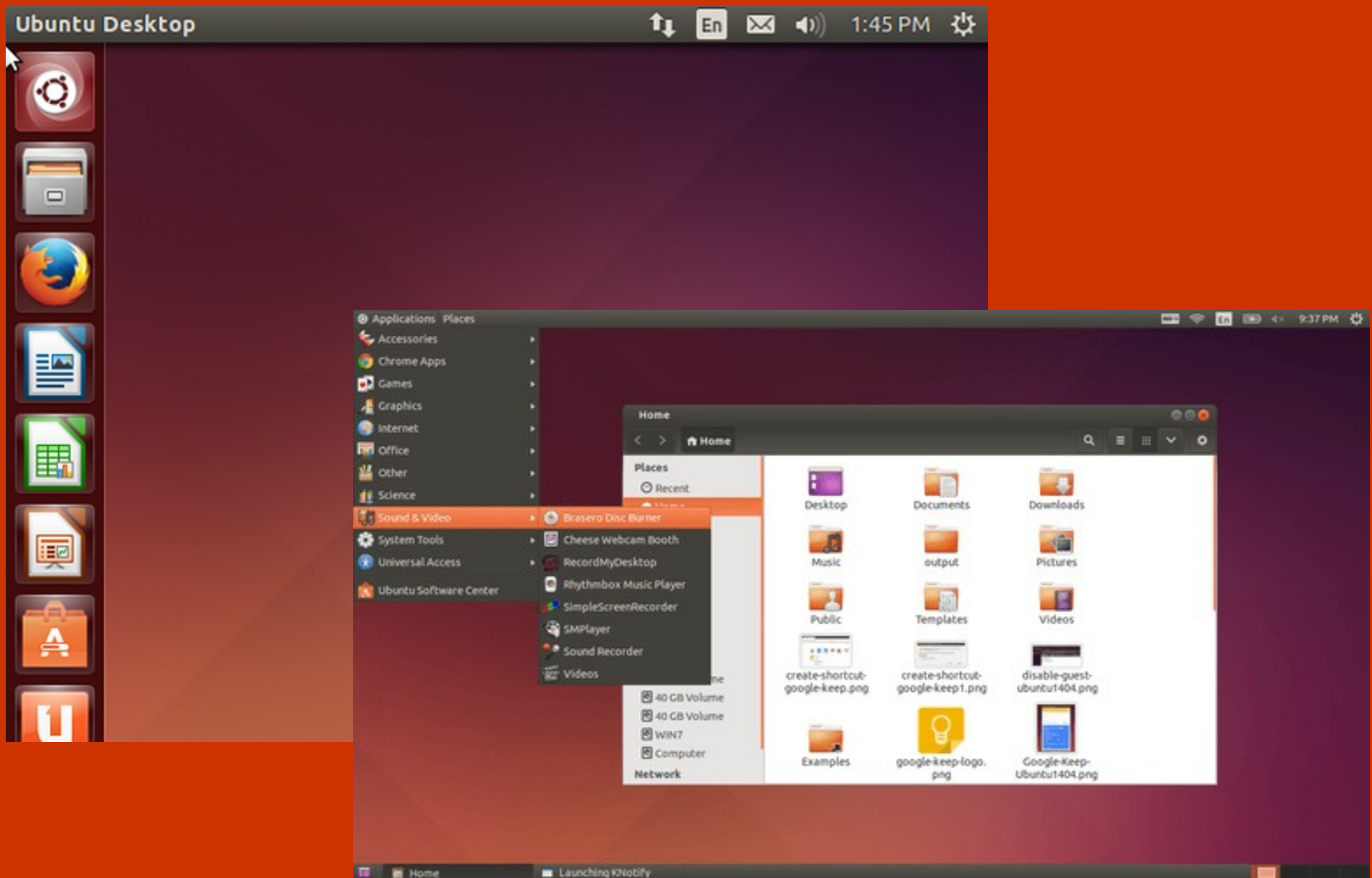
about four key ideas, and it is those ideas that are central to the Ubuntu promise

- That our software should not come with a license fee. That we should be able to share our software, modify it, and then share our modifications, too.
- That this free software should be the best version available, including regular security updates, and not a tease for a better, commercial product.
- That full-scale, high-quality commercial support from local and global companies should be available for this free platform.
- That this software should be usable in as many languages as possible and usable by as many people as possible regardless of disability.

The seventeen of us who met in London two years ago come from a variety

Foreword from Mark Shuttleworth re-iterating the Ubuntu promise in The Official Ubuntu Book.

Ubuntu Desktop

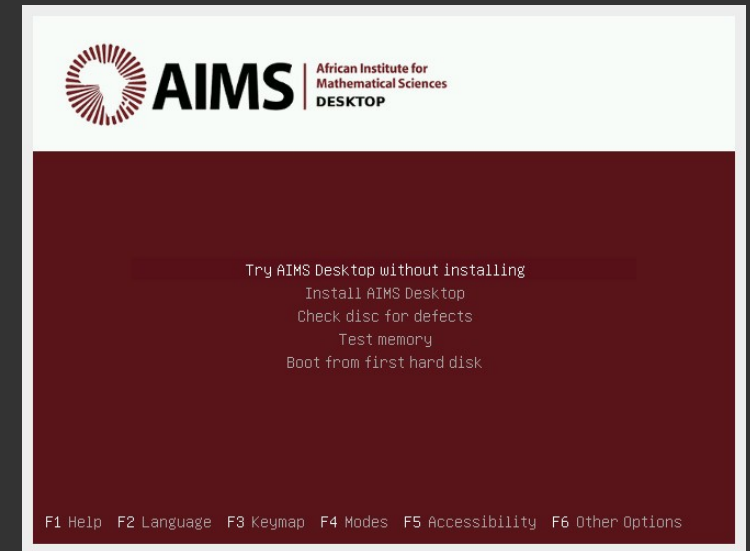
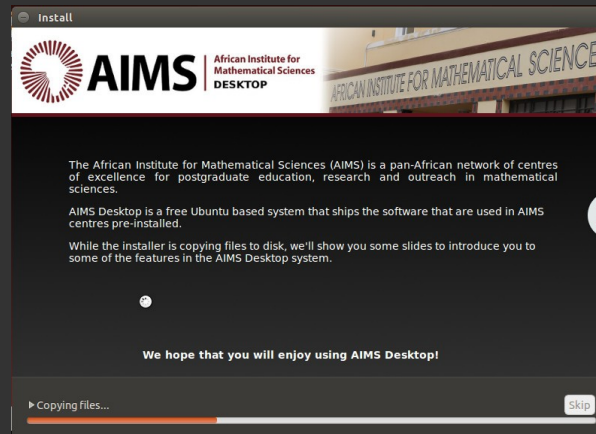
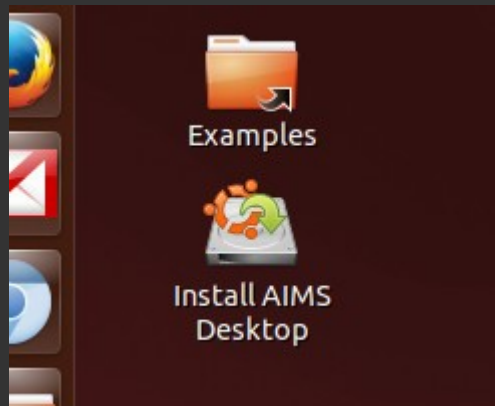


Ubuntu Installer



AIMS Desktop Artwork

- LightDM (login screen)
- /etc/issue (text login)
- Plymouth (bootsplash)
- Ubiquity (installer slideshow)
- gfxboot
- Wallpapers
- Disable Apport



```
AIMS Desktop 14.04.3  desktop tty1
desktop login:
```

Canonical IP Policies

Ubuntu Licencing:

<http://www.ubuntu.com/about/about-ubuntu/licensing>

IPRights Policy:

<http://www.ubuntu.com/legal/terms-and-policies/intellectual-property-policy>

IPRights Policy

Excerpts

3. Your use of Ubuntu

- ✔ You can download, install and receive updates to Ubuntu for free.
- ✔ Ubuntu is freely available to all users for personal, or in the case of organisations, internal use. It is provided for this use without warranty. All implied warranties are disclaimed to the fullest extent permitted at law.
- ✔ You can modify Ubuntu for personal or internal use.
- ✔ You can make changes to Ubuntu for your own personal use or for your organisation's own internal use.
- ✔ You can redistribute Ubuntu, but only where there has been no modification to it.
- ✔ You can redistribute Ubuntu in its unmodified form, complete with the installer images and packages provided by Canonical (this includes the publication or launch of virtual machine images).
- ✔ Any redistribution of modified versions of Ubuntu must be approved, certified or provided by Canonical if you are going to associate it with the Trademarks. Otherwise you must remove and replace the Trademarks and will need to recompile the source code to create your own binaries. This does not affect your rights under any open source licence applicable to any of the components of Ubuntu. If you need us to approve, certify or provide modified versions for redistribution you will require a licence agreement from Canonical, for which you may be required to pay. For further information, please contact us (as set out below).

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Excerpts

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!?

!?

Commercial Definition

**From license (sorry not sharing the whole thing publically),
an interesting definition of commercial use:**

3. **Commercial usage:** you distribute AIMS-desktop to anyone other than:
 - (a) AIMS South Africa
 - (b) AIMS centres globally
 - (c) African universities whether or not affiliated with AIMS
 - (d) Alumni of AIMS
 - (e) Researchers for AIMS

!@#\$

A Question To You

Do you (still) consider an Ubuntu ISO Free Software?

Or even by any other definition?

Open Source? DFSG free?

Want to contribute to AIMS Desktop?

help@aims.ac.za



AIMS

African Institute for
Mathematical Sciences
DESKTOP