

Computer resources

LFA – IF - USP

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29-May-2019

Overview

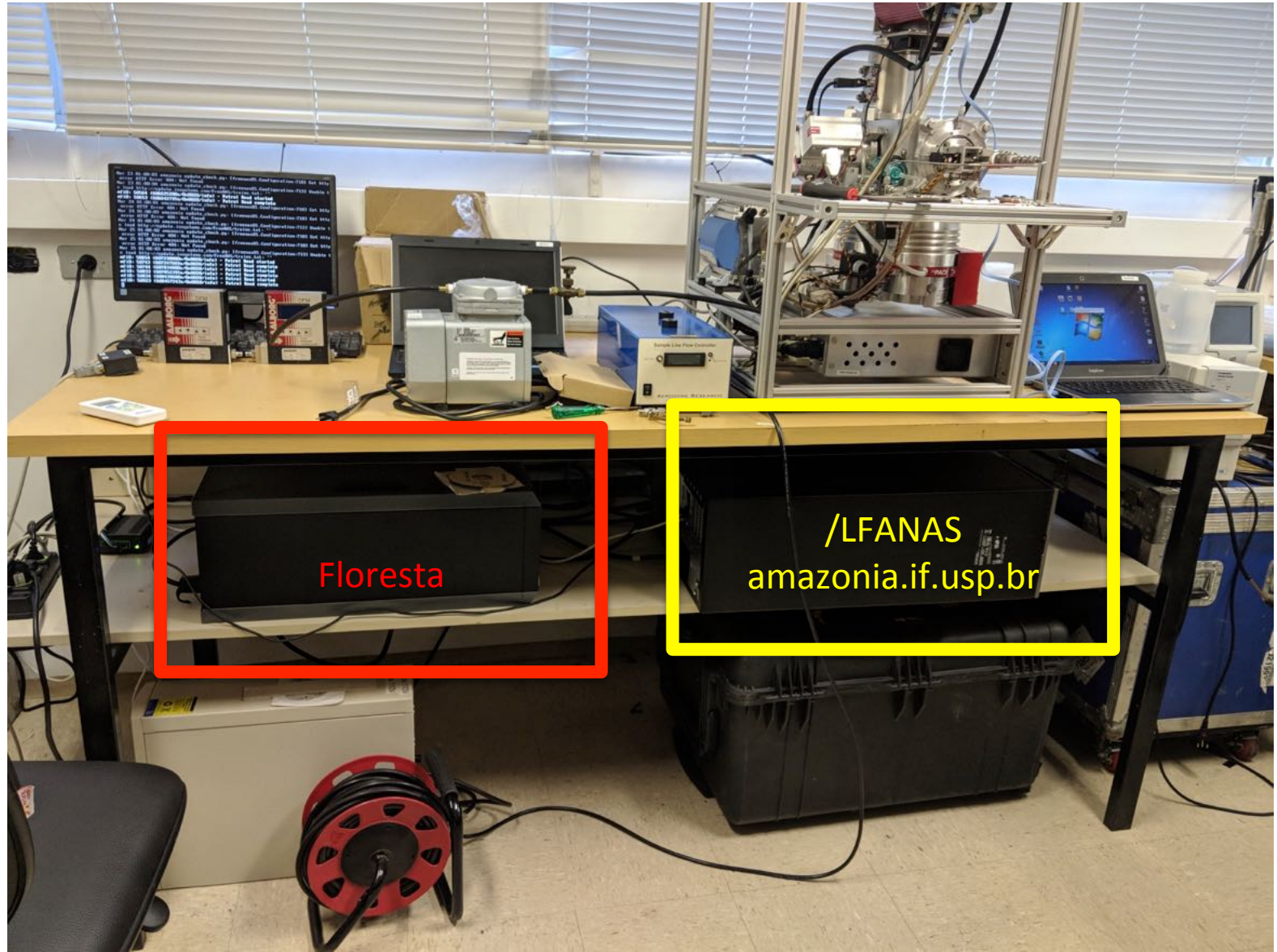
- **Server Floresta**
- Cluster Aerossol
- Network Attached Storages (NAS)
- LFASERVER
- Google Drive

Floresta

- Xeon 6 core E5-2420 @ 2.20Gb
- 32Gb RAM
- (4) HD de 4Tb
 - /server (4Tb, Raid0)
 - /work (4Tb, Raid0)
- **Server:**
 - WEB
 - SFTP
 - SSH (data processing)



Sala 2, Ed. Milênio



Floresta

/LFANAS
amazonia.if.usp.br



Main LALINET

The Latin America Lidar Network (LALINET a.k.a ALINE) is a Latin American coordinated lidar network measuring aerosol backscatter coefficient and aerosol extinction profiles for climatological studies of the aerosol distribution over Latin America, as well as other atmospheric species such as ozone and water vapor. This federative lidar network aims to establish a consistent and statistically sound database for enhancement of the understanding of the aerosol distribution over the continent and its direct and indirect influence on climate.

[Read more about our history](#)

LALINET is a contributing network to the GAW Programme.

Barclay Clemesha (22 October 2018)



After finishing his first degree at the University of London in 1957, Barclay Clemesha left his native England to work as an International Geophysical Year research assistant at University College Ibadan, Nigeria. Although he intended to return to work in the UK at the end of his eighteen-month contract, he has not done so.

After three years at Ibadan, working on the physics of the lower ionosphere, he moved to the University of Ghana, Accra, where he worked on F-region irregularities for 3 years. Working with a Radar he detected field aligned irregularities at equatorial region which only years after would be known as Equatorial Plasma Bubbles.

In 1963 he moved to the University of the West Indies, Kingston, Jamaica, where together with Geoffrey Kent and Ray Wright, he developed one of the first laser radars for atmospheric studies. He completed his Ph. D. at the University of the West Indies in 1968. While in Jamaica he participated of the First International Symposium of Equatorial Aeronomy in Peru and of the Second Symposium that took place at INPE, São José dos Campos, Brazil in 1966. There he knew Ida, at the time bilingual Secretary of the Symposium. They got married and after living in Jamaica to the end of 1968 they returned to Brazil and Dr. Clemesha started to work as Researcher at INPE and where he worked for the next 47 years.

His pioneering continued at INPE where he built the first Laser Radar (Lidar) of the Southern Hemisphere and measured Stratospheric Aerosols from 1969 to 1972. That time was also an era of great progress in Lasers Development and Dr. Clemesha built here at INPE an almost handmade Dye Laser used to measure Sodium, metal present in the upper atmosphere due to the incidence of meteors. His interests in Physics of The Upper Atmosphere did not limited to Lidars, but has extended also to experiments on board of sounding rockets, Airglow, and also to the measurements of wind and temperature in the upper atmosphere. Besides a productive scientist, professor and advisor we have lost also a great human being.

Dr. Paulo Prado Batista

Network

- History
- Measurement Protocol
- Galion/GAW
- Newsletter and Reports

Opportunities

- Post-graduation with Lidar
- Post-graduation in atmosphere

Contributing Teams

- Argentina - CEILAP
- Argentina - SMN
- Bolivia
- Brasil - Manaus
- Brasil - Natal
- Brasil - Sao Paulo
- Chile - Temuco
- Chile - Punta Arenas
- Colombia - CIBioFi
- Colombia - SIATA
- Colombia - UNAL
- Cuba

Algorithmic Workshops



Main
Home Page

The Laboratory of Atmospheric Physics develops research related to atmospheric physics, particularly physical and chemical properties of atmospheric aerosols, atmospheric trace gases and clouds. Our main research sites are in the Amazon region, but we also study air pollution in urban areas. Our approach includes in-situ measurements, ground and satellite based remote sensing and numerical modeling.

People

Faculty

Projects

- ATTO (2018-2022)
- GoAmazon (2013-2018)
- ACONVEX (2011-2017)
- CHUVA (2010-2015)
- AEROCLIMA (2008-2013)

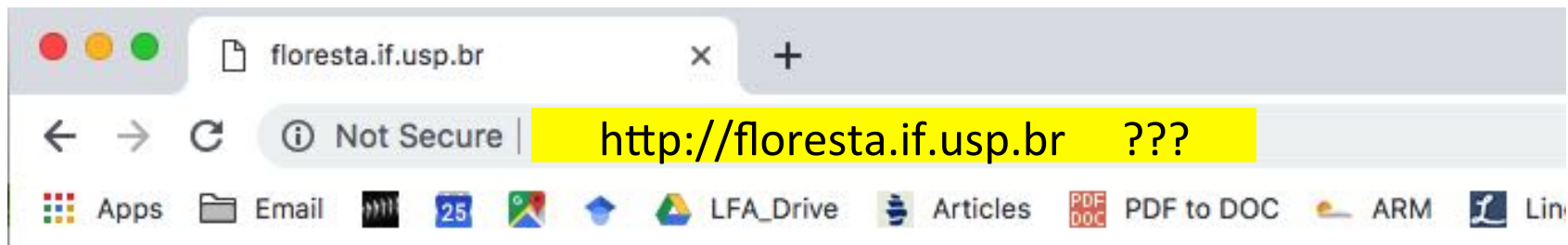
Recent Research Sites

- Manaus-ZF2
- Manaus-Embrapa
- Manaus-ATTO-T0
- Manaus-TIWA-T2
- Manaus-Manacapuru-T3

Events

- 2018 Summer course
- 2018 Winter short-course
- 2016 Hysplit Online Workshop
- 2015 Summer course
- ACONVEX Workshop

FTP Server



Do not try to access this server directly. Please use the alias so that you are redirected to the correct webpage.

For the LFA webpage:

<http://www.lfa.if.usp.br>

For the LabAberto webpage:

<http://www.lababerto.if.usp.br>

For the LaLinnet webpage:

<http://www.lalinet.org>

http://lfa.if.usp.br/ftp/public/

Index of /ftp/public

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
Parent Directory		-	
2015SummerCourse/	2015-10-30 12:35	-	
2016Hysplit_Tutorial/	2016-05-14 13:15	-	
G1/	2015-07-08 18:37	-	
GNSS_MAO/	2015-10-27 09:16	-	
GNSS_MAO_zip/	2019-01-08 17:01	-	
LFA_Processed_Data/	2018-07-19 12:54	-	
Pantanal/	2018-05-18 13:48	-	
Pelletron/	2018-07-24 16:51	-	
Presentations_Paulo_Artaxo/	2016-11-11 16:07	-	
Publications_Paulo_Artaxo/	2019-03-12 12:12	-	
RioBranco/	2019-04-11 13:39	-	
Shared_datasets_Paulo_Artaxo/	2016-06-02 15:19	-	
Temp/	2019-04-11 14:28	-	
UEA/	2018-03-01 13:19	-	
asiva/	2018-09-03 16:09	-	
embrapa/	2017-02-10 03:12	-	
ftp.mpic.de/	2016-01-08 13:05	-	
googleec326a260c0d358cf.html	2015-07-13 15:08	53	
labmaster/	2014-10-22 20:28	-	
lidar/	2017-05-29 13:51	-	
lidar_chuva/	2011-11-29 18:44	-	
lidar_ipen/	2014-10-13 18:40	-	
previsao/	2014-01-23 20:30	-	
robots.txt	2015-07-13 15:18	12	
trailer/	2017-04-04 18:03	-	
trans/	2015-02-01 22:56	-	

Public access to all data on the FTP server.

Folders for site's raw data are hidden:

ATTO/

ZF2/

etc..

Read/Write access with sftp

- From outside Physics/USP

floresta.if.usp.br

lfa.if.usp.br

ftp.lfa.if.usp.br (preferred)

143.107.131.164

- Two types of users:

- Regular linux users (**shell access, public key**)

- SFTP only users (**no shell, just password**)

- FTP data:

/server/apacherooot/lfa.if.usp.br/htdocs/ftp/public/



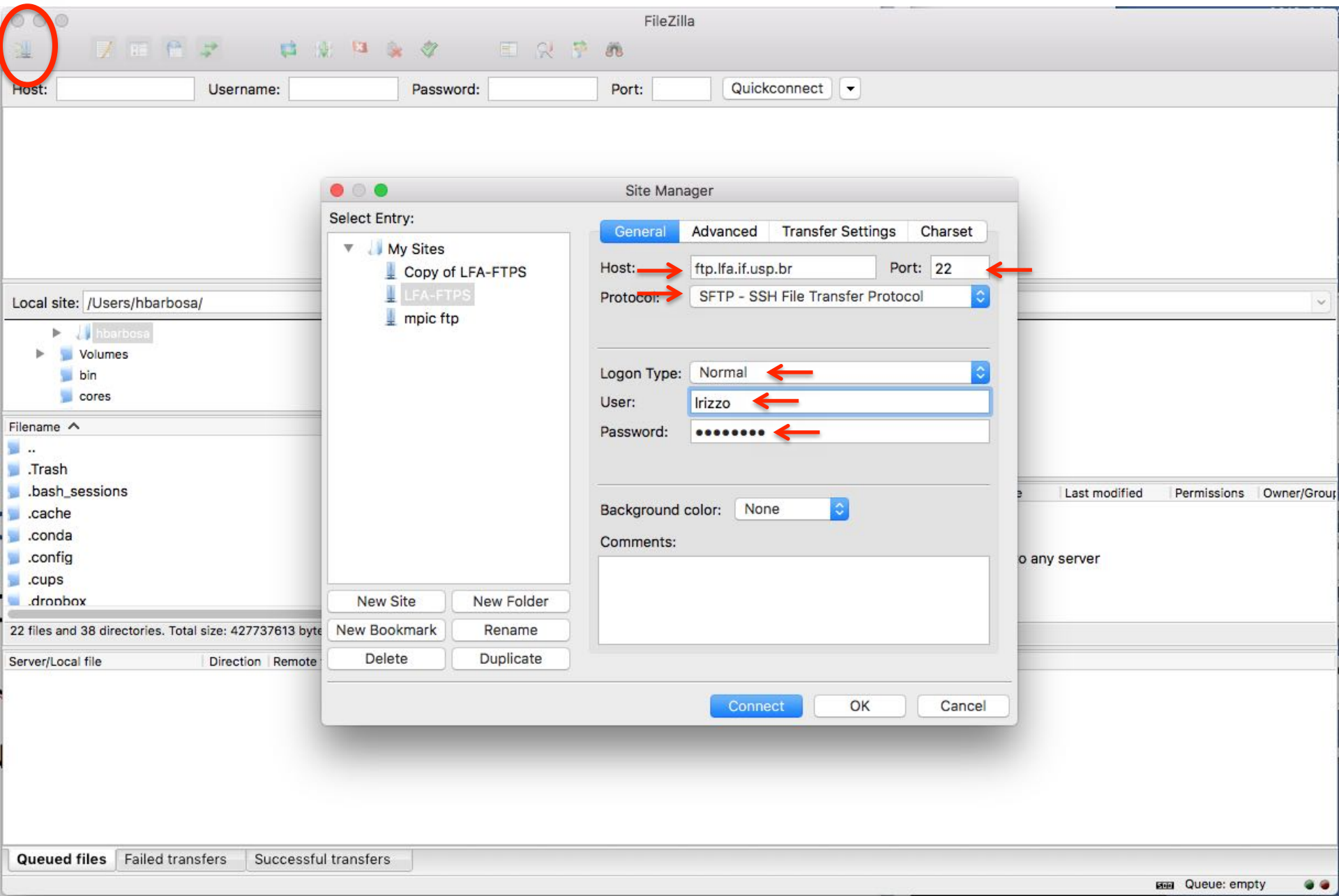
4Tb
Raid0

web
server

LFA web
page

ftp data
folder

SFTP-only user



SFTP only user

Host: Username: Password: Port: Quickconnect

Status: Connecting to ftp.lfa.if.usp.br...
Status: Connected to floresta.if.usp.br
Status: Retrieving directory listing...
Status: Listing directory /
Status: Directory listing of "/" successful

Local site: /Users/hbarbosa/ Remote site: /

Just sees the ftp root folder (very safe)

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Gr
..		Directory			
2015SummerCourse		Directory	10/30/15 10:...	drwxr-xr-x	1023 125
2016Hybrid_Tutorial		Directory	05/14/16 10:1...	drwxr-xr-x	1023 125
ATTO		Directory	6:...	drwxr-xr-x	1023 125
GNSS_MAO		Directory	5:...	drwxr-xr-x	1023 125
GNSS_MAO_zip		Directory	7:1...	drwxr-xr-x	1023 125
IGAC_iCACGP2014		Directory	5:...	drwxr-xr-x	1023 125
IGAC_iCACGP2014_YS		Directory	2:...	drwxr-xr-x	1023 125
LFA_Processed_Data		Directory	09/24/14 08:...	drwxr-xr-x	1023 125
Manacapuru		Directory	07/19/18 09:...	drwxrwxr-x	1023 125
Pantanal		Directory	02/23/16 14:...	drwxr-xr-x	1023 125
Pelletron		Directory	05/18/18 10:...	drwxr-xr-x	1033 125
Presentations_Paulo_Arta...		Directory	07/24/18 14:...	lrwxrwxrwx	0 0
Publications_Paulo_Artaxo		Directory	11/11/16 14:0...	drwxr-xr-x	1023 125
RioBranco		Directory	03/12/19 09:...	drwxr-xr-x	1023 125
		Directory	04/11/19 10:3...	drwxrwxr...	1023 125

Can see the hidden folders

22 files and 38 directories. Total size: 427737613 bytes

2 files and 31 directories. Total size: 65 bytes

Server/Local file | Direction | Remote file | Size | Priority | Status

Queued files | Failed transfers | Successful transfers

Queue: empty

Pay attention not to delete data from the FTP!

Regular Linux User

The screenshot displays the FileZilla interface with the Site Manager dialog box open. The Site Manager dialog is in the 'General' tab and shows the following configuration:

- Host: lfa.if.usp.br
- Port: 22
- Protocol: SFTP - SSH File Transfer Protocol
- Logon Type: Key file
- User: embrapa
- Key file: (empty field with a 'Browse...' button)

Red arrows point to the Host, Port, Logon Type, User, and Key file fields. A 'Password required' dialog box is also visible, with the text: "Enter the password for the file '/Users/hbarbosa/id_rsa.cluster'. The converted file will be protected with the same password." Below this text is an empty password input field and 'Cancel' and 'OK' buttons.

In the bottom right, a 'Save' dialog box is open, titled "Save" and "Select filename for converted key file". The 'Save As' field contains "Untitled", and the 'Where' field is set to "hbarbosa". 'Cancel' and 'Save' buttons are at the bottom.

The background shows the FileZilla main window with the local site path "/Users/hbarbosa/" and a list of files and directories. The status bar at the bottom indicates "22 files and 38 directories. Total size: 427737613 bytes".

Regular Linux User

Copy of LFA-FTPS - sftp://hbarbosa@lfa.if.usp.br - FileZilla

Host: Username: Password: Port: Quickconnect

Status: Directory listing of / successful
Status: Disconnected from server
Status: Connecting to lfa.if.usp.br...
Status: Connected to lfa.if.usp.br
Status: Retrieving directory listing...
Status: Listing directory /home/hbarbosa
Status: Directory listing of "/home/hbarbosa" successful

Local site: /Users/hbarbosa/ Remote site: /home/hbarbosa

Local site contents:

- hbarbosa
- Volumes
- bin
- cores

Remote site contents:

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Gr
..		Directory			
.Mathematica		Directory	10/04/10 19:1...	drwxr-xr-t	hbarbosa
.VirtualBox		Directory	02/06/13 16:...	drwx-----	hbarbosa
.cache		Directory	03/29/19 16:...	drwx-----	hbarbosa
.conda		Directory	05/10/18 17:...	drwxrwxr-x	hbarbosa
.config		Directory	05/10/18 18:...	drwxr-xr-x	hbarbosa
.dbus		Directory	10/05/12 14:...	drwx-----	hbarbosa
.emacs.d		Directory	01/29/17 23:...	drwx-----	hbarbosa
.felix		Directory	02/28/19 11:...	drwxr-xr-x	hbarbosa
.fontconfig		Directory	05/08/15 18:...	drwxr-xr-x	hbarbosa
.gconf		Directory	03/12/19 09:...	drwx-----	hbarbosa
.gconfd		Directory	02/15/13 18:1...	drwx-----	hbarbosa
.gdl		Directory	07/11/16 17:0...	drwx-----	hbarbosa
.gegl-0.0		Directory	05/08/15 18:...	drwx-----	hbarbosa
.gimp-2.4		Directory	02/15/13 19:...	drwxr-xr-x	hbarbosa
.gimp-2.6		Directory	05/08/15 19:...	drwxr-xr-x	hbarbosa

22 files and 38 directories. Total size: 427737613 bytes

123 files and 77 directories. Total size: 28815263325 bytes

Server/Local file | Direction | Remote file

Queued files | Failed transfers | Successful transfers

Queue: empty

You see your own files (your user home directory)

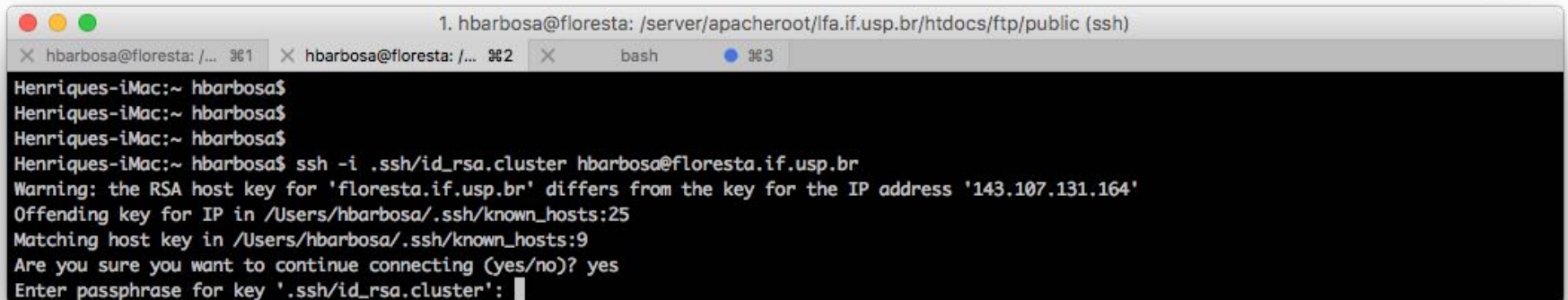
Pay attention not to delete data from server, other users, or ftp!

Then go to the FTP directory

`/server/apacherooot/lfa.if.usp.br/htdocs/ftp/public/`

(ssh server) floresta.if.usp.br

- From outside Physics/USP
floresta.if.usp.br
143.107.131.164
- From Putty: convert the ssh-key to ppk format



```
1. hbarbosa@floresta: /server/apacheroot/lfa.if.usp.br/htdocs/ftp/public (ssh)
X hbarbosa@floresta: /... 361 X hbarbosa@floresta: /... 362 X bash 363
Henriques-iMac:~ hbarbosa$
Henriques-iMac:~ hbarbosa$
Henriques-iMac:~ hbarbosa$
Henriques-iMac:~ hbarbosa$ ssh -i .ssh/id_rsa.cluster hbarbosa@floresta.if.usp.br
Warning: the RSA host key for 'floresta.if.usp.br' differs from the key for the IP address '143.107.131.164'
Offending key for IP in /Users/hbarbosa/.ssh/known_hosts:25
Matching host key in /Users/hbarbosa/.ssh/known_hosts:9
Are you sure you want to continue connecting (yes/no)? yes
Enter passphrase for key '.ssh/id_rsa.cluster':
```

(ssh server) floresta.if.usp.br

```
1. hbarbosa@floresta: /home/hbarbosa (ssh)
hbarbosa@floresta:~$ ll /opt/
total 28
drwxr-xr-x 24 root    root   4096 Oct 23 12:22 anaconda3
-rw-r--r--  1 root    root    653 Oct  4 2010 bashrc11.1.opt
-rw-r--r--  1 root    root    820 Oct  4 2010 bashrc.opt
drwxr-xr-x  6 root    root    52 May  2 2017 ffmpeg
drwxrwxr-x  2 root    root   4096 May 30 2016 flexlm
drwxr-xr-x  9 root    root   4096 Aug  5 2015 grads
drwxr-xr-x  5 libuid  users   61 Sep 28 2010 idl
drwxr-xr-x  3 libuid  users  112 Sep 28 2010 idl7
drwxr-xr-x 10 root    root   4096 Mar 11 2010 intel
drwxr-xr-x 20 root    root   4096 Nov  8 2017 Matlab_R2015a
drwxr-xr-x 13 root    root    133 Mar  6 2009 mpich1-intel
drwxr-xr-x  6 root    root    52 Mar  6 2009 netcdf-intel
hbarbosa@floresta:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            16G   4.0K  16G   1% /dev
tmpfs           3.2G   1.2M  3.2G   1% /run
/dev/sdc2       28G   25G   3.3G  89% /
none            4.0K   0   4.0K   0% /sys/fs/cgroup
none            5.0M   0   5.0M   0% /run/lock
none            16G   80K   16G   1% /run/shm
none            100M   16K  100M   1% /run/user
/dev/sdc3       411G  105G  306G  26% /home
/dev/sdb1       3.7T   2.1T   1.6T  58% /server
/dev/sda1       3.7T   2.8T   905G  76% /work
143.107.128.207:/mnt/volume1/dataset1 20T   16T   4.6T  78% /LFASGI
143.107.131.169:/mnt/volume1/dataset1 10T   8.7T   1.4T  87% /LFANAS
hbarbosa@floresta:~$
```

- Python3
- Grads
- IDL
- Matlab 2015
- Intel compiler

Disks:

/work (4Tb)

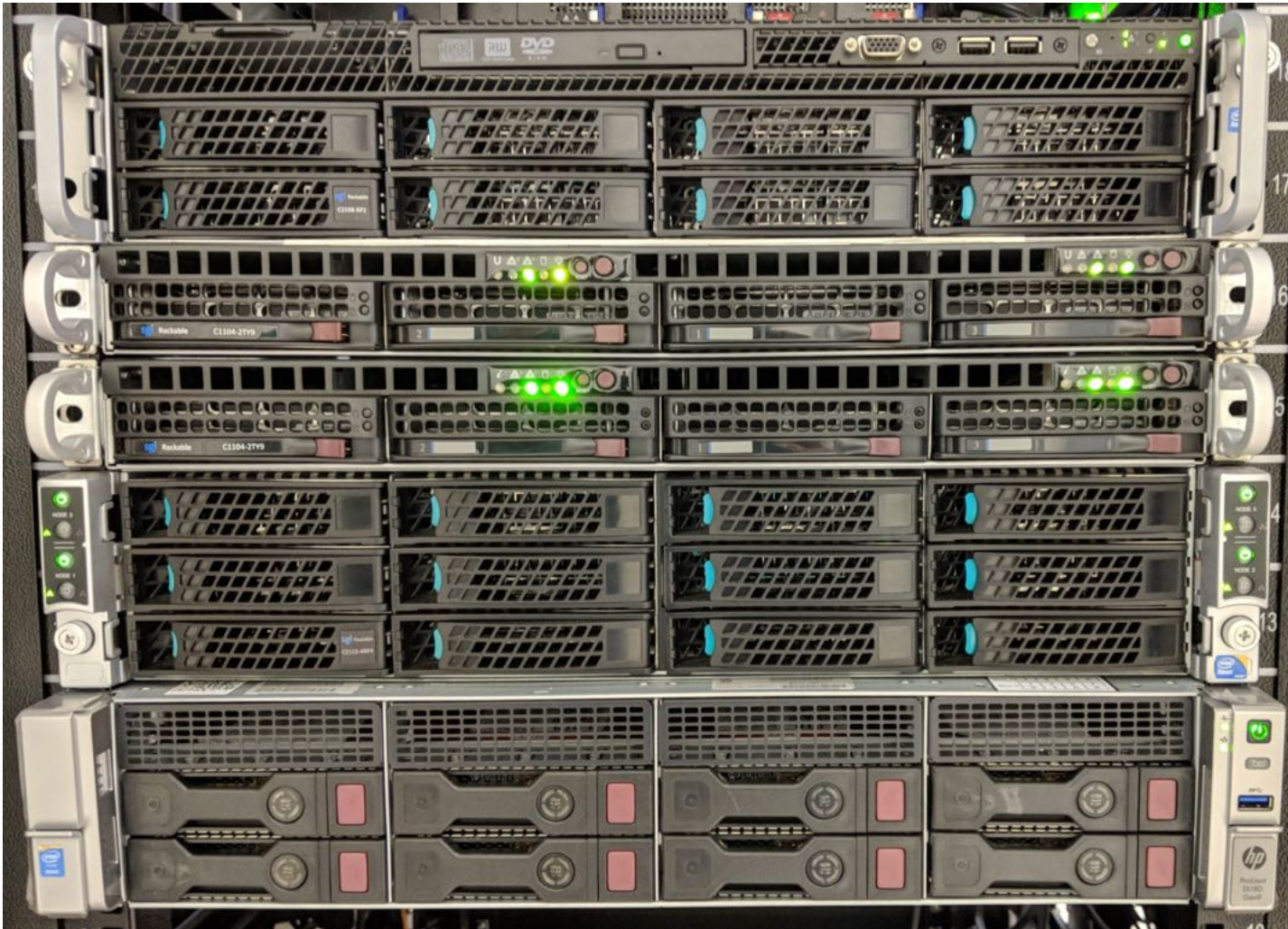
/LFASGI (20Tb)

/LFANAS (10Tb)

Overview

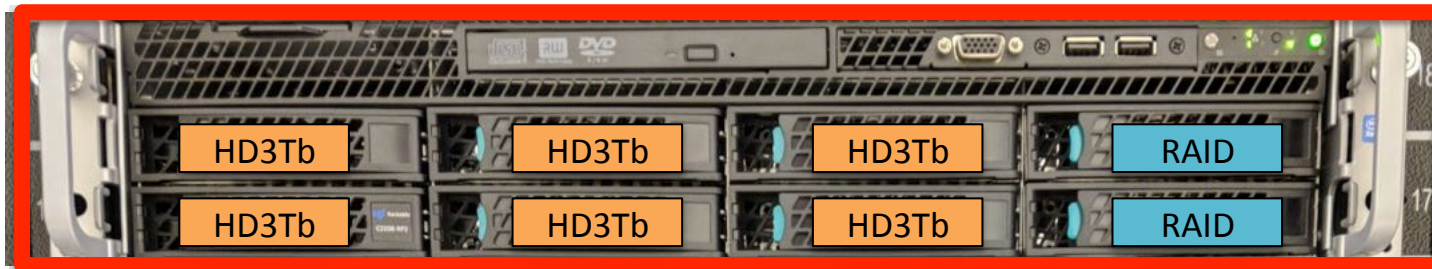
- Server Floresta
- **Cluster Aerossol**
- Network Attached Storages (NAS)
- LFASERVER
- Google Drive

Cluster SGI



- Head node
- Old
- New

Cluster SGI (Head node)



SGI C2108
server

Head node
= 12 core, 64Gb RAM, 18Tb disco

- 2014 (GoAmazon project)
 - C2108 server with
 - (2) Six core 2.6 GHz Xeon CPU, 64 GB DDR3 memory, (8) 3000 GB SATA Hard Disk, (4) GigE ports, (1) QDR IB port, RAID Controller, SUSE Linux Enterprise Server 11,

Cluster SGI (Head node)

```
1. ssh
hbarbosa@floresta: /... %1 hbarbosa@floresta: /... %2 ssh %3
top - 16:19:08 up 312 days, 21:00, 2 users, load average: 0.21, 0.38, 0.30
Tasks: 317 total, 1 running, 316 sleeping, 0 stopped, 0 zombie
Cpu0 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu1 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu2 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu3 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu4 : 0.0%us, 0.7%sy, 0.0%ni, 99.3%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu5 : 0.3%us, 0.0%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu6 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu7 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu8 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu9 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu10 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu11 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu12 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu13 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu14 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu15 : 0.0%us, 0.7%sy, 0.0%ni, 99.3%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu16 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu17 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu18 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu19 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu20 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu21 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu22 : 0.0%us, 0.0%sy, 0.0%ni,100.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Cpu23 : 0.0%us, 0.3%sy, 0.0%ni, 99.7%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 63947M total, 63342M used, 604M free, 0M buffers
Swap: 7629M total, 141M used, 7488M free, 51841M cached

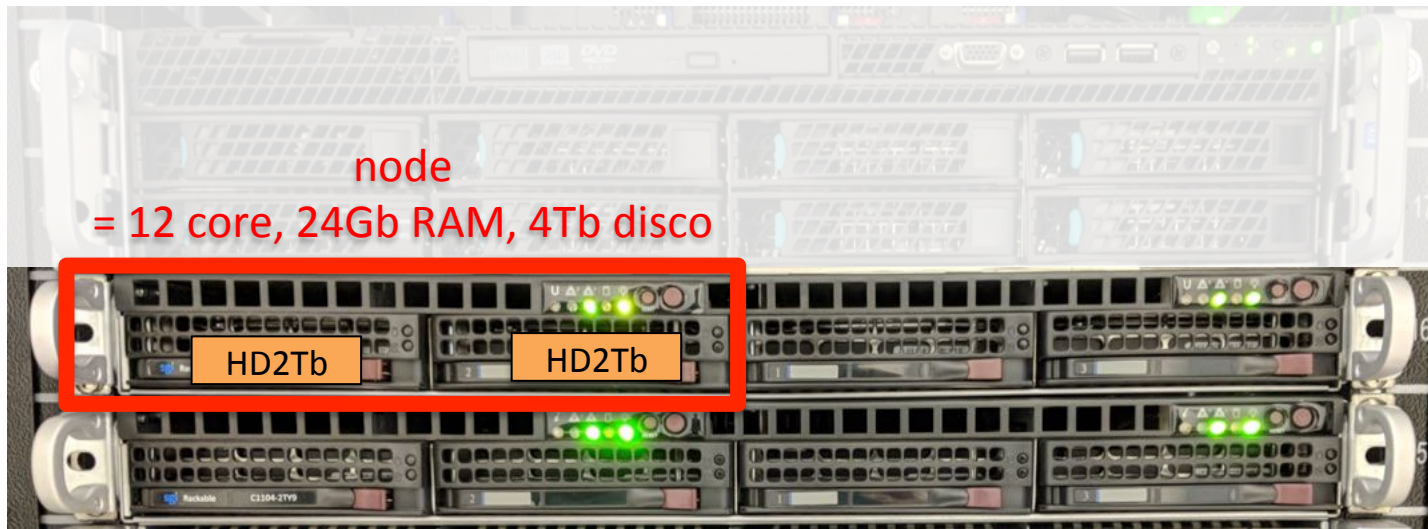
```

virtual

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
5000 root 20 0 16.6g 8.4g 3080 S 1 13.4 16015:11 java
4809 root 39 19 0 0 0 S 0 0.0 11730:37 kipmi0
6205 root 20 0 22480 1364 1284 S 0 0.0 16:51.41 ipmitool
228819 hbarbosa 20 0 9076 1332 856 R 0 0.0 0:00.04 top
1 root 20 0 10560 720 688 S 0 0.0 10:16.65 init
```

Cluster SGI (Old) – n001 to n004



AGI Altix
XE 340

- 2011 (ComplexNet project)
 - (2) Altix XE 340 with
 - (2) six core 2.66GHz Xeon CPU, 24 GB DDR3 1333MHz memory, (2) 2000 GB SATA Hard Disk, Dual Port GigE, Infiniband port. SUSE Linux Enterprise Server 11

Cluster SGI (New) – n005 to n008

- 2014 (GoAmazon project)
 - (1) SGI C2112 server with
 - (8) ten core 2.5 GHz Xeon CPU, 64 GB DDR3 memory, (4) 1000 GB SATA Hard Disk, (8) GigE ports, (4) QDR IB port, SUSE Linux Enterprise Server 11



SGI C2112

node
= 20 core, 64Gb
RAM, 1Tb disco

Cluster SGI

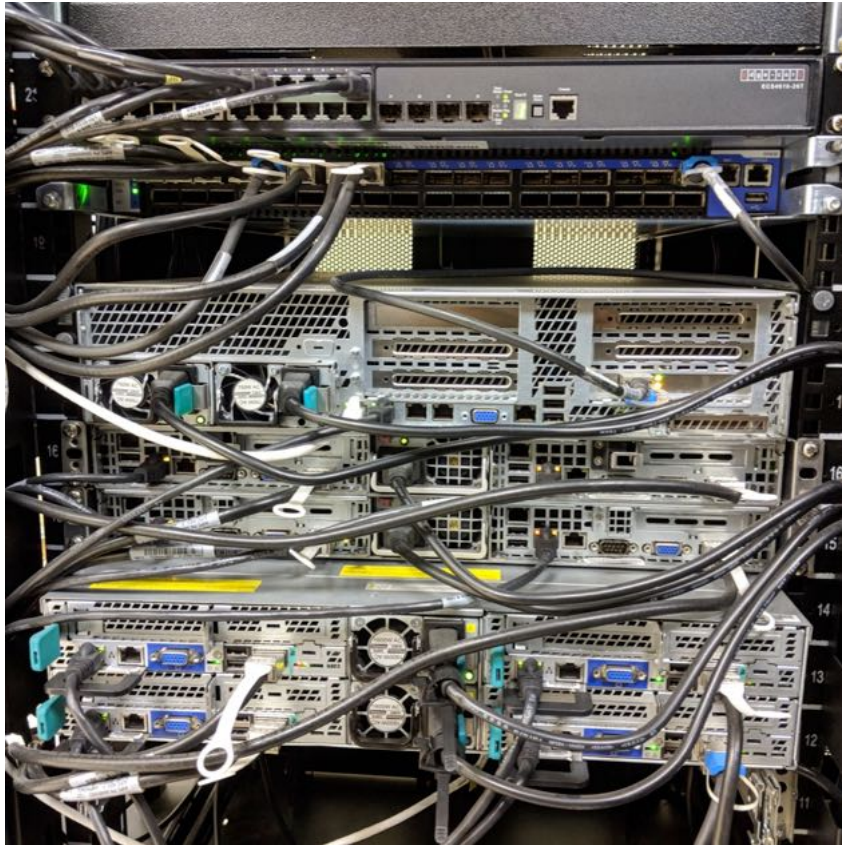


- Head node = 12 core, 64Gb RAM, 18Tb disco
- n001 to n004= 12 core, 24Gb RAM, 4Tb disco
- n005 to n008 = 20 core, 64Gb RAM, 1Tb disco

Total = 128 core, 352Gb RAM
20Tb de disco local
18Tb no head-node (Raid5)
20Tb /LFASGI (nas)
10Tb /LFANAS (nas)

Cluster SGI

- Infiniband ports / switch



QDR InfiniBand provides a 40 Gbps link.



Cluster SGI

- From outside Physics/USP
aerossol.if.usp.br
- Only by SSH with exchange of public key
`ssh -X -i <key_path> user@aerossol`
- Use SFTP (e.g. filezilla) to transfer files

Overview

- Server Floresta
- Cluster Aerossol
- **Network Attached Storages (NAS)**
- LFASERVER
- Google Drive

Network Attached Storages (NAS)

- *“is a dedicated file storage that enables multiple users and heterogeneous client devices to retrieve data from centralized disk capacity. Users on a local area network (LAN) access the shared storage via a standard Ethernet connection”*
- We have 2 NAS used for scientific data to be processed on floresta or aerossol

NAS

/LFANAS

amazonia.if.usp.br

3 x 2Tb (backup)

5 x 2Tb (data)

Total: 10Tb



2 x QuadCore Xeon E5430 @2.66GHz 20Gb RAM
Old LFASERVER,DELL PowerEdge 2900 from 2008

1 x SixCore Xeon E5-2603 @1.60GHz 16Gb RAM
HP Enterprise DL180, from 2016



/LFASGI

pantanal.if.usp.br

3 x 4Tb (backup)

5 x 4Tb (data)

Total: 20Tb

Storage do IF | Centro de Comi X | what is Network Attached Stor X | amazonia - FreeNAS-9.10.2-U6 X | cerrado - FreeNAS-9.10.2-U6 X

Not Secure | cerrado.if.usp.br

Apps | Email | LFA_Drive | Articles | PDF to DOC | ARM | Linguee | Aerosol | Astronomy | Data | Lectures | Math

FreeNAS™ | iXsystems™

Account | System | Tasks | Network | Storage | Directory | Sharing | Services | Plugins | Jails | Reporting | Wizard | Support | Guide | OK

expand all | collapse all

View Disks

Name	Serial	Disk Size	Description	Transfer Mode	HDD Standby	Advanced Power Management	Acoustic Level	Enable S.M.A.R.T.	S.M.A.R.T. extra options
ada0	WD-WCC4E3CUE10	4.0 TB		Auto	5	64	Disabled	true	
ada1	Z3074XY6	4.0 TB		Auto	5	64	Disabled	true	
ada2	Z3075H9F	4.0 TB		Auto	5	64	Disabled	true	
ada3	Z3074XPR	4.0 TB		Auto	5	64	Disabled	true	
ada4	Z306F36L	4.0 TB		Auto	5	64	Disabled	true	
ada5	Z306F1HY	4.0 TB		Auto	5	64	Disabled	true	
ada6	WD-WCC4E1AH845	4.0 TB		Auto	5	64	Disabled	true	
ada7	Z306F2CW	4.0 TB		Auto	5	64	Disabled	true	

Account
System
Tasks
Network
Storage
Directory Service
Sharing
Services
Plugins
Jails
Reporting
Guide
Wizard
Display System Processes
Shell
Log Out
Reboot
Shutdown

FreeNAS® © 2016 iXsystems, Inc.

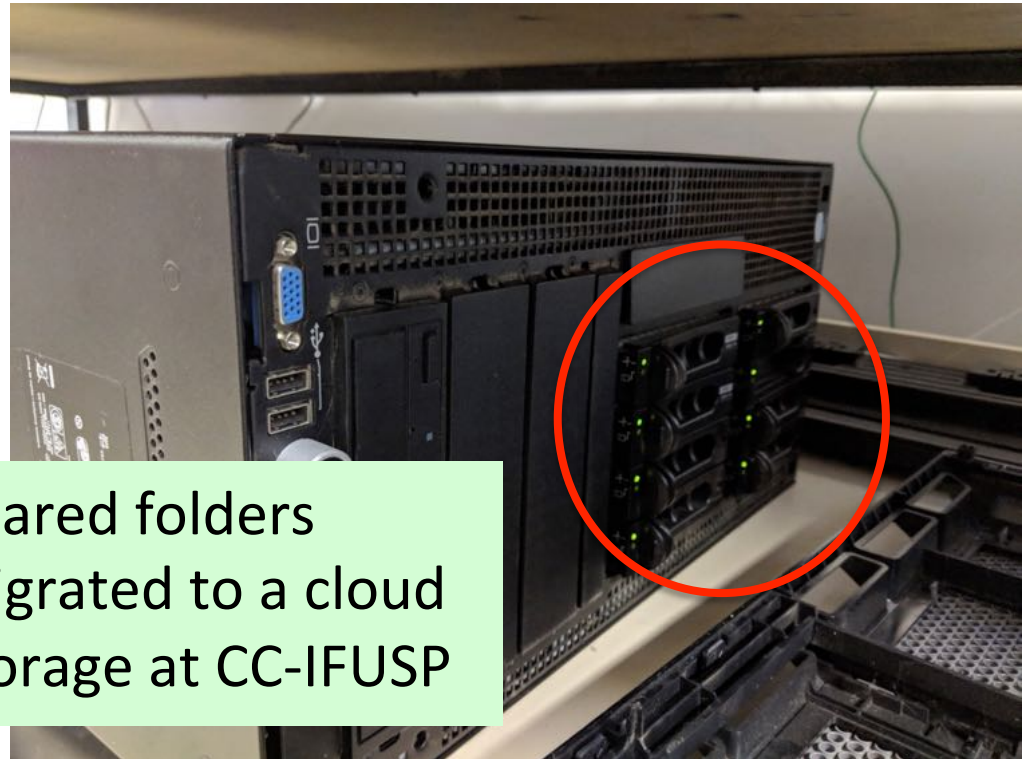
Could be mounted on windows, but its better if we don't...

Overview

- Server Floresta
- Cluster Aerossol
- Network Attached Storages (NAS)
- **LFASERVER**
- Google Drive

LFA SERVER

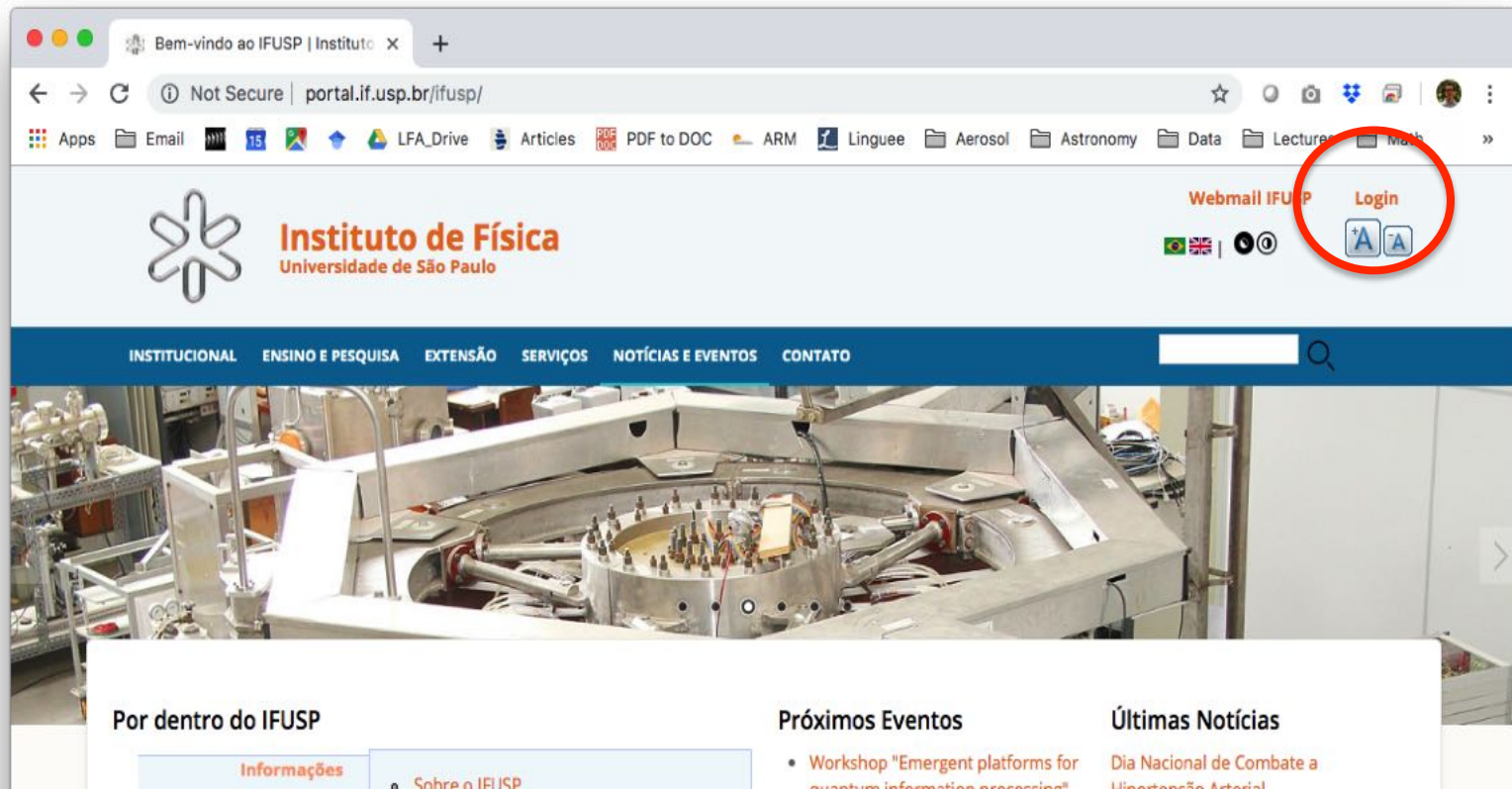
- Old name from the time when this machine was running Windows Server 2008:
 - Shared folders
 - NIS
 - DNS
 - WINS



Shared folders
migrated to a cloud
storage at CC-IFUSP

Access LFA SERVER

- Must have a @if.usp.br email
- Must be able to login @intranet, and must have changed initial password
- Paulo/Henrique/Alexandre ask to add you in the group




The image shows a screenshot of a web browser displaying the IFUSP (Instituto de Física, Universidade de São Paulo) website. The browser's address bar shows the URL `portal.if.usp.br/ifusp/`. The website header features the IFUSP logo and the text "Instituto de Física Universidade de São Paulo". In the top right corner, there are links for "Webmail IFUSP" and "Login", with the "Login" link circled in red. Below the header is a navigation menu with links for "INSTITUCIONAL", "ENSINO E PESQUISA", "EXTENSÃO", "SERVIÇOS", "NOTÍCIAS E EVENTOS", and "CONTATO". The main content area displays a large image of a laboratory setup, likely related to the LFA server mentioned in the text. Below the image, there are sections for "Por dentro do IFUSP", "Próximos Eventos", and "Últimas Notícias".

hbarbosa | Instituto de Física x +

https://portal.if.usp.br/ifusp/pt-br/user/501/edit

Apps Email 15 LFA_Drive Articles PDF to DOC ARM Linguee Aerosol Astronomy Data Lectures Math

 **Instituto de Física**
Universidade de São Paulo

Webmail IF **Minha Conta** Sair

BR UK

INSTITUCIONAL ENSINO E PESQUISA EXTENSÃO SERVIÇOS NOTÍCIAS E EVENTOS CONTATO

hbarbosa

Ver **Editar**

Dados do Sistema

Endereço de email *

hbarbosa@if.usp.br

This email address is automatically set and may not be changed.

Trocar Senha *

Clique aqui para trocar a Senha: [Alterar sua senha.](#)

Configurações de idioma

Idioma

Português, Brasil (Português)

inglês (English)

O idioma padrão desta conta para e-mails e idioma preferido para a apresentação do site.

Dados Pessoais

Nome Completo *

password

https://portal.if.usp.br/ccifusp/pt-br/node/345

Links

- [Acesso ao Pró-Aluno](#)
- [Cadastro para uso IFNet](#)
- [Eduroam - Configuração](#)
- [Pregões e Registros de Preços Abertos](#)
- [Código de Ética](#)
- [Guia de uso de recursos computacionais do IFUSP](#)
- [Portaria p/ administradores e usuários dos sistemas computacionais](#)
- [Cartilha de Segurança - CERT](#)

Comissão de Informática

- [Comissão de Informática](#)
- [Histórico de Reuniões](#)

Sala de Reuniões

Storage do IF

Storage

Storage é um dispositivo conectado à rede capaz de armazenar grande volume de dados.

Os objetivos de utilizar um storage são:

- Armazenamento de dados
- Alto Desempenho
- Disponibilidade dos dados
- Segurança
- Backup

Primeiro acesso ao storage central

Se você não alterou sua senha no último ano, o primeiro passo é alterar sua senha, de modo a seguir os critérios de segurança de dados requeridos neste sistema. Há duas maneiras de fazer isso:

1. Pela página principal do IFUSP
 - A. Acesse <http://web.if.usp.br>
 - B. Faça o login na intranet com seu username e senha atuais
 - C. clique em "alterar senha" no bloco com o seu nome de usuário
2. Diretamente
 - A. Vá à página web <https://iadm.if.usp.br/users/>
 - B. Preencha os dados correspondentes

Note que a alteração de senha muda todas as suas senhas no IFUSP, incluindo a senha da intranet, sistemas de recebimento e envio de email e acesso aos servidores centrais. Se você grava esta senha nos clientes de e-mail (thunderbird, outlook, etc.) ou em navegadores da internet (firefox, iexplorer, etc.) será necessário atualizar os dados gravados nestes programas. Em geral estes programas percebem que a senha foi alterada e pede a nova senha.

Formulários

- [Chamados/Solicitações on-line](#)

Ajudas e Dicas

Como trocar sua senha do IFUSP.

Recomendações para aquisição de câmeras de vigilância para uso na rede do IFUSP
SSH - Apagando conflitos de chaves.

Storage SGI para Usuarios e Grupos do IF
Cadastro dos Equipamentos no IFNET

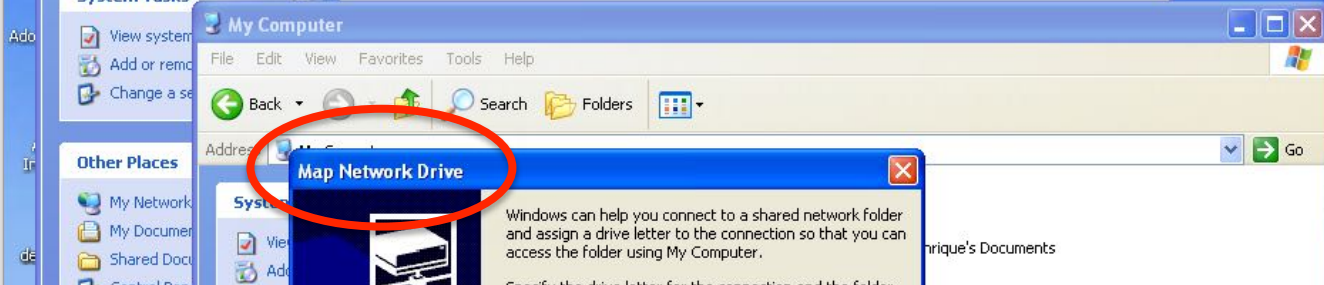
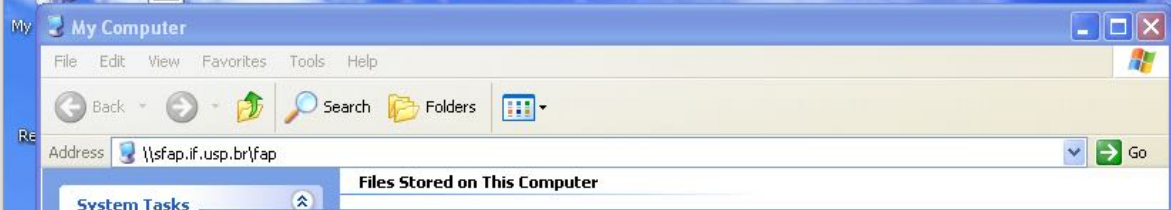
Como achar o MAC address dos dispositivos

Videoconferência - Informações
Impressora Samsung - FMA

Criando pasta "Lixeira" - Webmail
Colabore com a qualidade da rede do IFUSP ajustando seu dropbox.

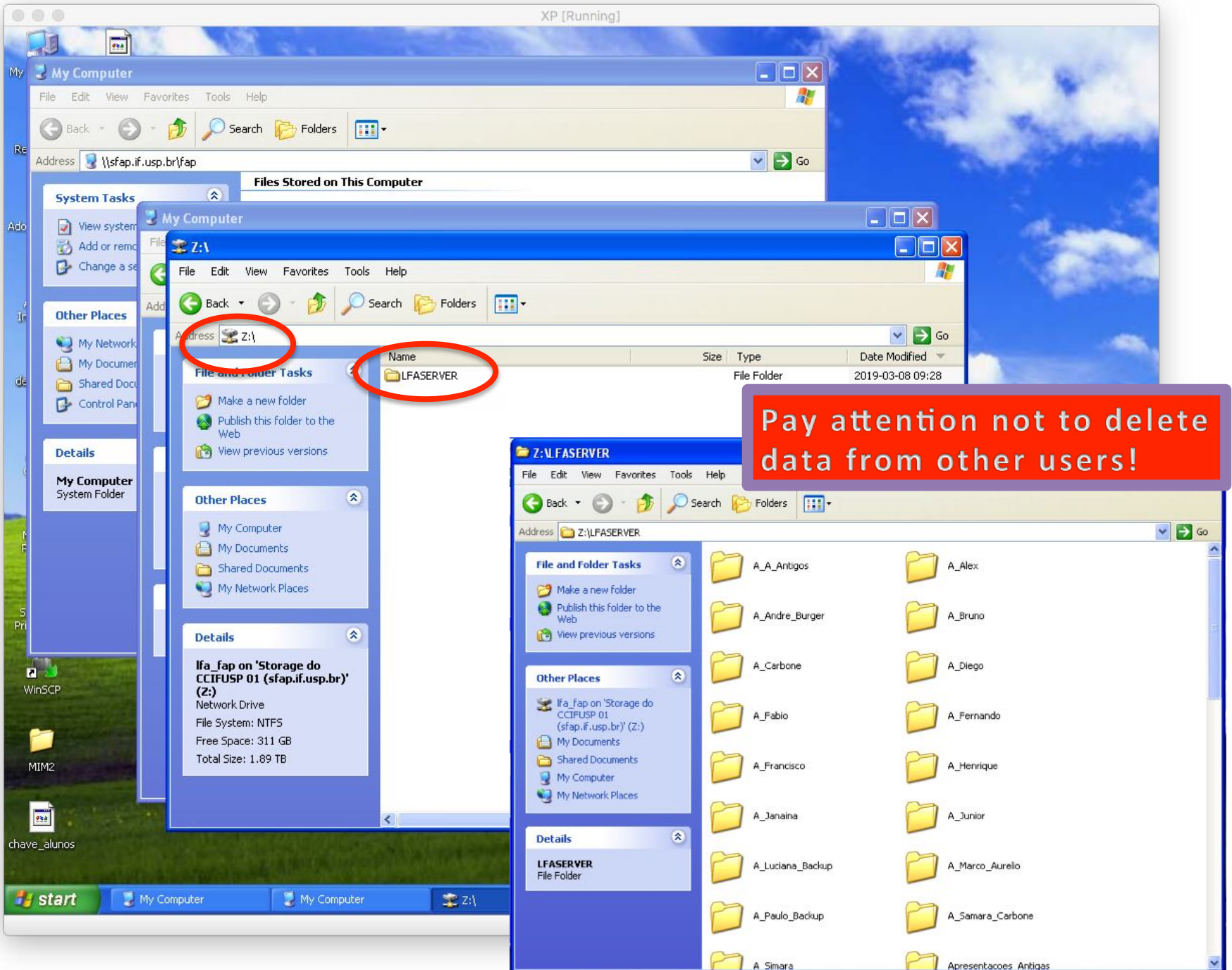
Rede Wifi - EDUROAM

Configurar o Cuops para uso no



We want to connect to LFA's shared folder:
`\\sfap.if.usp.br\lfa_fap`



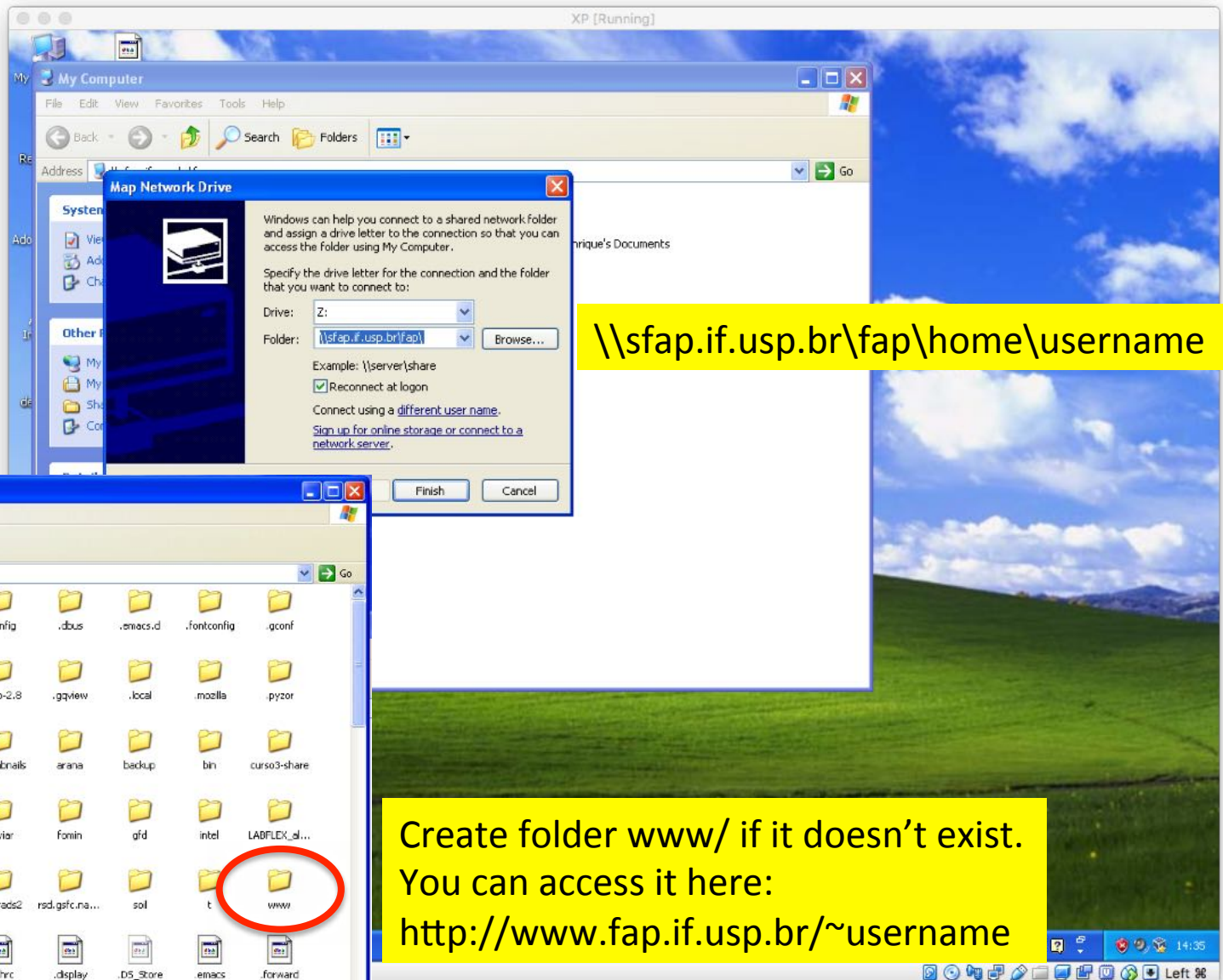


Pay attention not to delete data from other users!

(bonus) Your own webpage

- Emails @if.usp.br have a linux user associated with it, and hence a home area on the FAP server (virtual server)
 - Store files
 - Run programs (linux)
 - Host a webpage, etc.
- Access
 - SSH to fap.if.usp.br
 - SFTP (filezilla) or Windows (map drive)

Option 1 – Mount on windows



\\sfap.if.usp.br\fap\home\username

Create folder www/ if it doesn't exist.
You can access it here:
<http://www.fap.if.usp.br/~username>

Option 2 - Filezilla

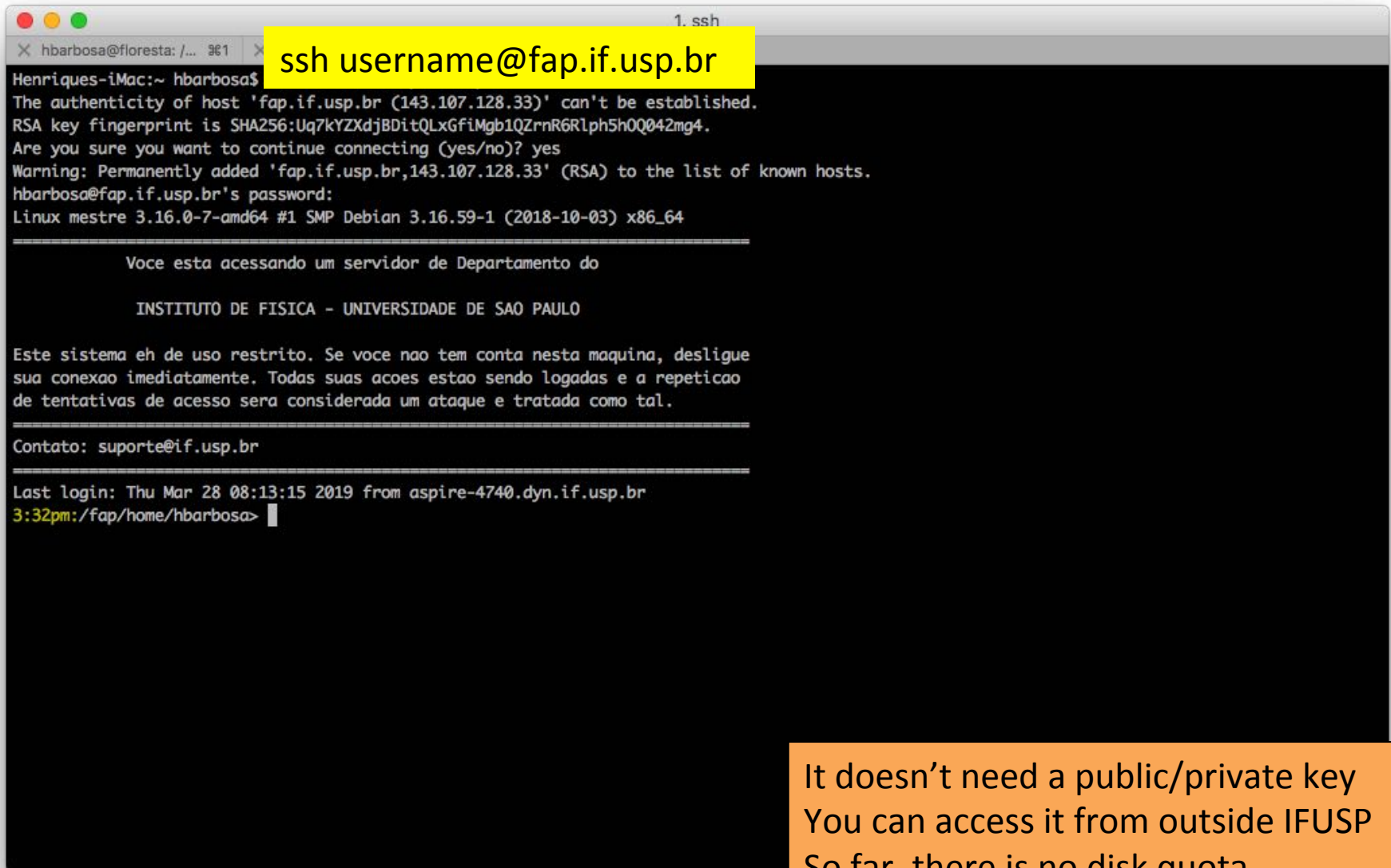
The screenshot shows the FileZilla interface with the following details:

- Host:** sftp://fap.if.usp.br
- Username:** hbarbosa
- Password:** [Redacted]
- Port:** [Empty]
- Quickconnect:** [Dropdown menu]
- Status:** Connecting to fap.if.usp.br...
Connected to fap.if.usp.br...
Retrieving directory listing...
Listing directory /fap/home/hbarbosa
Directory listing of "/fap/home/hbarbosa" successful
- Local site:** /Users/hbarbosa/
- Remote site:** /fap/home/hbarbosa
- Local site tree:** hbarbosa, Volumes, bin, cores
- Remote site tree:** /, fap, home, hbarbosa
- Local site file listing:**

Filename	Filesize	Filetype	Last modified
..			
.Trash		Directory	04/15/19 1
.bash_sessions		Directory	03/20/19 1
.cache		Directory	03/12/18 1
.conda		Directory	03/22/18 1
.config		Directory	08/06/18 1
.cups		Directory	10/28/13 1
.dropbox		Directory	05/16/18 1
.emacs.d		Directory	01/06/17 1
.filezilla		Directory	04/15/19 1
.ipython		Directory	08/08/16 1
.jupyter		Directory	08/09/16 1
.matlab		Directory	10/24/13 2
.matplotlib		Directory	11/09/18 1
.oracle_jre_usage		Directory	01/18/17 1
.putty		Directory	01/08/19 1
- Remote site file listing:**

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Gr
arana		Directory	05/16/14 13:...	drwxrwxr-x	hbarbosa
backup		Directory	01/14/09 19:1...	drwxr-xr-x	hbarbosa
bin		Directory	10/05/17 12:...	drwxr-xr-x	hbarbosa
curso3-share		Directory	08/02/10 13:...	drwxr-xr-x	hbarbosa
emacs		Directory	04/15/09 17:...	drwxr-xr-x	hbarbosa
enviar		Directory	12/13/13 10:1...	drwxr-xr-x	hbarbosa
fomin		Directory	03/02/18 11:...	drwxr-xr-x	hbarbosa
gfd		Directory	01/28/10 17:...	drwxr-xr-x	hbarbosa
intel		Directory	10/16/08 14:...	drwxr-xr-x	hbarbosa
local		Directory	10/16/08 15:...	drwxr-xr-x	hbarbosa
mybox		Directory	09/24/15 13:...	drwxrwxr-x	hbarbosa
mygrads2		Directory	10/15/08 13:...	drwxr-xr-x	hbarbosa
rsd.gsfc.nasa.gov		Directory	10/14/08 11:3...	drwxr-xr-x	hbarbosa
soil		Directory	05/06/11 17:...	drwxr-xr-x	hbarbosa
t		Directory	09/17/09 15:...	drwxr-xr-x	hbarbosa
www		Directory	06/20/18 13:...	drwxr-xr-x	hbarbosa
- Summary:** 25 files and 38 directories. Total size: 427741235 bytes (Local); 108 files and 36 directories. Total size: 411629084 bytes (Remote)
- Transfer Queue:** Queued files, Failed transfers, Successful transfers. Queue: empty

Option 3 – use ssh (or putty on windows)



```
Henriques-iMac:~ hbarbosa$ ssh username@fap.if.usp.br
The authenticity of host 'fap.if.usp.br (143.107.128.33)' can't be established.
RSA key fingerprint is SHA256:Uq7kYZXdjBDitQLxGfiMgb1QZrnR6Rlph5h0Q042mg4.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'fap.if.usp.br,143.107.128.33' (RSA) to the list of known hosts.
hbarbosa@fap.if.usp.br's password:
Linux mestre 3.16.0-7-amd64 #1 SMP Debian 3.16.59-1 (2018-10-03) x86_64

=====

Voce esta acessando um servidor de Departamento do

INSTITUTO DE FISICA - UNIVERSIDADE DE SAO PAULO

Este sistema eh de uso restrito. Se voce nao tem conta nesta maquina, desligue
sua conexao imediatamente. Todas suas acoes estao sendo logadas e a repeticao
de tentativas de acesso sera considerada um ataque e tratada como tal.

=====


Contato: suporte@if.usp.br

=====

Last login: Thu Mar 28 08:13:15 2019 from aspire-4740.dyn.if.usp.br
3:32pm:/fap/home/hbarbosa>
```

It doesn't need a public/private key
You can access it from outside IFUSP
So far, there is no disk quota

```
1 <html>
2 <body>
3
4 <H1> Minha pagina </H1>
5
6 Eu sou fulando...
7
8 <p> meus arquivos: <a href="./ftp/"> clique aqui </a>
9
10 </body>
11 </html>
12
```

^G Ajuda**^O** Gravar**^R** Ler o Arq**^Y**  Anter**^K** Recort Txt**^C** Pos Atual**^X** Sair**^J** Justificar**^W** Onde est **^V**  **^U** Colar Txt**^T** Para Spell

Storage do IF | Cel x | what is Network At x | amazonia - FreeN x | cerrado - FreeNAS x | FreeBSD CPU Info x | www.fap.if.usp.br/ x +

Not Secure | www.fap.if.usp.br/~hbarbosa/

Apps | Email | LFA_Drive | Articles | PDF to DOC | ARM | Linguee | Aerosol | Astronomy | Data | Lectures | Math >>

Minha pagina

Eu sou fulando...










meus arquivos: [clique aqui](#)

Storage do IF | Cel x | what is Network At x | amazonia - FreeN x | cerrado - FreeNAS x | FreeBSD CPU Info x | Index of /~hbarbos x +

Not Secure | www.fap.if.usp.br/~hbarbosa/ftp/

Apps | Email | LFA_Drive | Articles | PDF to DOC | ARM | Linguee | Aerosol | Astronomy | Data | Lectures | Math >>

Index of /~hbarbosa/ftp

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 Climate_and_networks.doc	2009-02-18 16:56	29K	
 DiagDesiredTable.pnt_temp	2009-07-20 20:00	2.9K	
 GAP2003_060_phot.pdf	2009-06-12 17:28	316K	
 GAP2003_064_spot.pdf	2009-06-12 17:28	701K	
 GAP2003_068_fdsim.pdf	2009-06-12 17:28	354K	
 GAP2003_069_edep.pdf	2009-06-12 17:28	185K	
 GAP2004_029.pdf	2009-06-12 17:28	965K	
 GLOBALMPI_7ago09_originalCVS.tgz	2009-08-07 18:42	731K	

Overview

- Server Floresta
- Cluster Aerossol
- Network Attached Storages (NAS)
- LFASERVER
- **Google Drive**

You can view with the browser:

The image shows a browser window displaying the Google Drive interface. The address bar shows the URL `https://drive.google.com/drive/u/2/team-drives`. The page title is "Drive" and the search bar contains "Pesquisar no Drive". The main content area is titled "Drives de equipe" and displays a team drive named "LFA_Google_Drive_Equipe" with 12 members. The left sidebar shows navigation options: "Novo", "Meu Drive", "Drives de equipe", "Compartilhados comigo", "Recentes", "Com estrela", "Lixeira", and "Armazenamento" (10,4 MB em uso). The right sidebar shows the user account menu for "usp.br", listing "hbarbosa@usp.br" (Privacidade, Conta do Google), "Henrique Barbosa" (hmjbarbosa@gmail.com (padrão)), and "Henrique Barbosa" (hbarbosa@umbc.edu). The bottom of the browser shows two image thumbnails and a "Show All" button.

Google drive on your computer

Google Drive

Meet Drive Using Drive Download For Work Help

Go to Google Drive

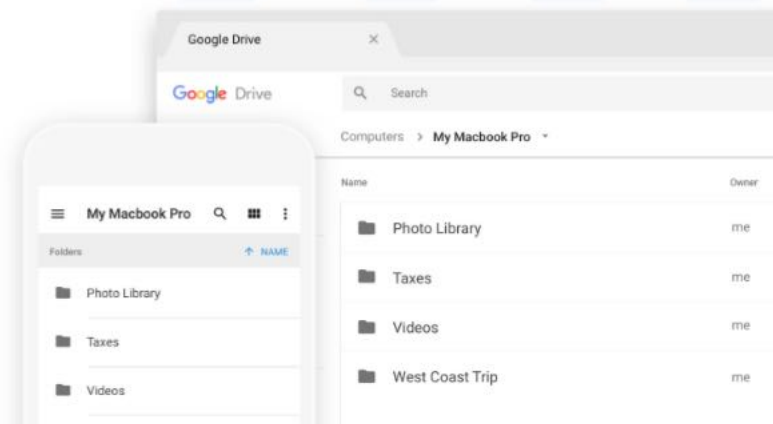
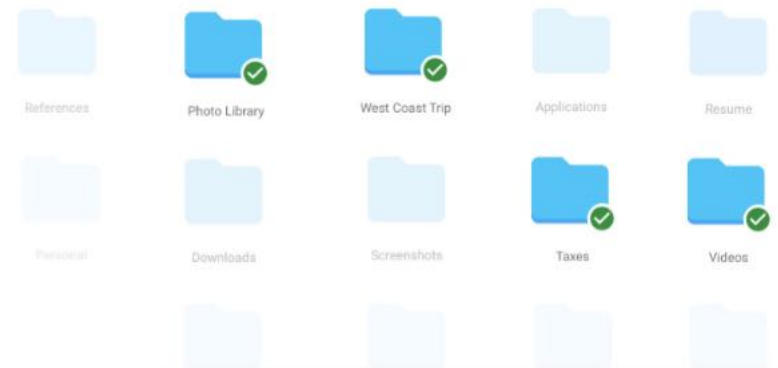


Safely back up your files

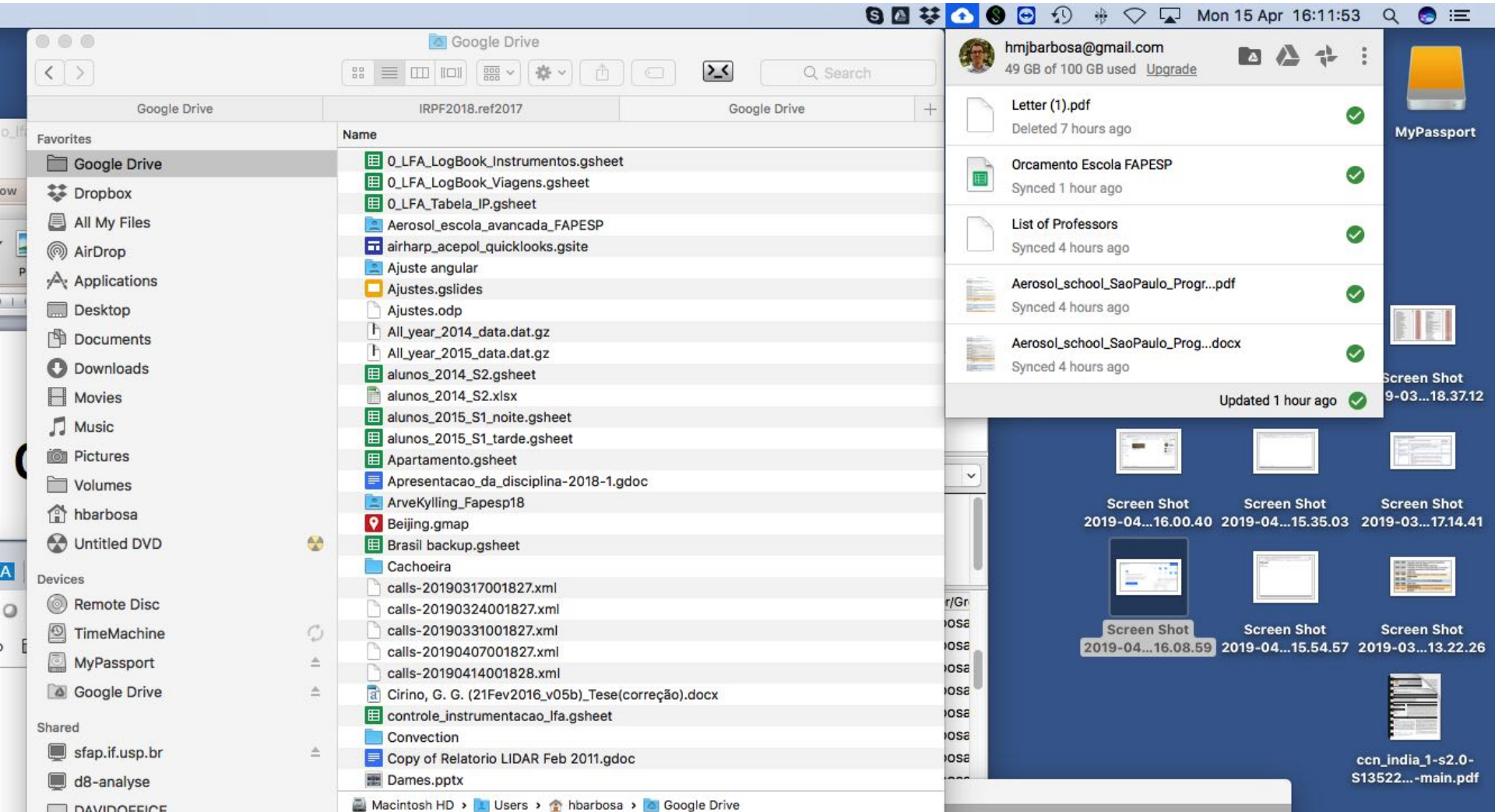
Upload and store files from any folder on your computer, camera, and SD cards in the cloud. You can find your content on any phone, tablet, or computer using Google Drive, and your photos and videos in [Google Photos](#).

Download Backup and Sync

G Suite customer? Learn about [Drive File Stream](#).



Google drive on your computer



Doesn't allow to view/sync Team Drives!



Use work or school files on your computer with Drive File Stream

If you use the original Google Drive for Mac/PC application, you can uninstall it and install Backup & Sync or Drive File Stream.

[Uninstall Google Drive for Mac/PC](#)

To use Drive File Stream, you need to have a Google Account through work or school, and you're signed into hmjbarbosa@gmail.com.

- If you don't have a work or school account, you can [learn about getting one](#).
- If you use a Google Account through work or school, [contact your administrator](#).

[Learn how to use Google Chrome to stay signed in to more than one Google Account.](#)

Was this article helpful?

Yes

No

Mount a virtual disk that gives you access to all files (on the cloud, so a bit slow). You have to choose which files/folder will be available offline.

Help

- [Compare Backup and Sync & Drive File Stream](#)
- [Back up & sync files with Google Drive](#)
- [Stop syncing Google Drive files with Backup and Sync](#)
- [Fix problems syncing to your computer](#)



[Get in touch with a Google Drive expert.](#)

Because you're a Google One member, you can get help from a Google support expert.



[Send feedback about our Help Center](#)

Use work or school files on your computer with Drive File Stream

If you use the original Google Drive for Mac/PC application, you can uninstall it and install Backup & Sync or File Stream.

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To use Drive File Stream, you need to have a Google Account through work or school, and you're signed into hmjbarbosa@gmail.com.

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[Learn how to use Google Chrome to stay signed in to more than one Google Account.](#)

Was this article helpful?

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Privacy
[Google Account](#)

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hbarbosa@usp.br
hbarbosa@usp.br

[Add account](#) [Sign out](#)

Get in touch with a Google Drive expert.

Because you're a Google One member, you can get help from a Google support expert.

©2019 Google - Privacy Policy - Terms of Service English [Send feedback about our Help Center](#)



Use work or school files on your computer with Drive File Stream

If you use the original Google Drive for Mac/PC application, you can uninstall it and install Backup & Sync or Drive File Stream.

[Uninstall Google Drive for Mac/PC](#)

Get started with Drive File Stream

You can find and open your files from Google Drive on your computer with Drive File Stream. You can:

- Save specific files and folders offline, including Team Drives.
- View and organize your files in your computer's file system without using storage space.
- Open files on your computer.

[Download & install Drive File Stream](#)

You might not be able to use Drive File Stream, or your organization might install it for you. If you have questions, [ask your administrator](#).


To download Drive File Stream:

[DOWNLOAD FOR WINDOWS](#) [DOWNLOAD FOR MAC](#)

1. On your computer, open:
 - DriveFileStream.exe on Windows
 - DriveFileStream.dmg on Mac
2. Follow the on-screen instructions.

Help

- Compare Backup and Sync & Drive File Stream
- Back up & sync files with Google Drive
- Stop syncing Google Drive files with Backup and Sync
- Fix problems syncing to your computer

 [Watch video tutorials](#)

To get the latest tips, tricks, and how-to's, subscribe to our YouTube Channel.



Google Drive

Applications
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Documents
Downloads
Movies
Music
Pictures
Volumes
hbarbosa
Untitled DVD

Devices
Remote Disc
TimeMachine
MyPassport
Install Google Drive File Stream
Google Drive

Shared
sfap.if.usp.br
d8-analyse
FTP-Backup
hidrogenio
inspiron's remote desktop on dem...
rogerio-pc

Henrique de Melo Jorge Barbosa
hbarbosa@usp.br

Loading your files

Name	Progress	Time
Metals.rar	Downloading 91%	2019 09:28
média diária.txt	Renaming item	2019 12:12
Metals.rar	Upload queued	2019 08:07
média diária.txt	Upload queued	2019 11:06
Syncing 2,436 files		
A_Janaina		24 April 2018 08:38
A_Junior		7 March 2019 13:35
A_Luciana_Backup		24 January 2015 15:46
A_Marco_Aurelio		25 February 2019 17:39
A_Paulo_Backup		4 October 2018 11:12
A_Samara_Carbone		11 April 2019 11:07
A_Simara		29 August 2018 10:02
Apresentacoes_Antigas		20 August 2018 16:20
Apresentacoes_LFA_Recentes		1 April 2019 12:18
Apresentacoes_OUTROS_recetes		1 April 2019 12:23
Cursos_Aerossois_Nuvens		11 April 2018 16:10
Download		1 April 2019 10:26
ESTACOES-EXPERIMENTOS		25 February 2019 14:28
Estacoos-Experimentos ANTIGOS		24 April 2018 08:40
Fire_spots_Amazonia		24 January 2015 19:54
GoAmazonFilters		10 August 2017 15:23
HySplit_Met_data		24 January 2015 19:58
IPCC_Reports		31 July 2018 16:28
LFA_Processed_Data		26 July 2017 16:51

47 items, 347.31 GB available

Google Drive
TimeMachine
MyPassport

Screen Shot
2019-04...9.33.08

Screen Shot
2019-04...09.33.12

Screen Shot
2018-10...11.52.18

Screen Shot
2019-03...18.37.12

Screen Shot
2019-04...9.33.24

Screen Shot
2018-10...12.05.58

Screen Shot
2019-03...17.14.41

Screen Shot
2019-04...11.35.40

Screen Shot
2019-03...13.22.26

ccn_india_1-s2.0-S13522...-main.pdf

Limits

- Team Drive
 - Unlimited storage
 - Max 400k files and folders
 - Max size 5Tb in one file
 - Max upload of 750Gb per day
 - Max 20 nested subfolders
- Google Drive
 - ??

Conclusions

- **\\sfap.if.usp.br\lfa_fap\LFASERVER**
 - Keep only files to be shared with this group
- **\\sfap.if.usp.br\fap\home\username**
 - Keep your person files (including backups)
- **\\sfap.if.usp.br\fap\home\username\www**
 - Your personal homepage at IFUSP!
- **GoogleDrive USP**
 - Start using (personal & team drive)
- **Aerossol e Floresta?**
 - Talk to me

```
$ shutdown -h now
```

```
URGENT: broadcast message from root:  
System going down IMMEDIATELY!
```

```
... time to leave ...
```

```
Now you can turn off the power...
```