

# Some fairly General Computing Notes

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## Abstract

This is a simple document which will...

## 1 Directory Structure

### 1.1 Notes on particular (Mac) Directories

/usr  
/usr/local  
/System  
/bin  
/sbin

## 2 Equations

## 3 Definitions

strain = fractional change in length/distance

## 4 LIGO

## 5 References

Ross et al. (2007)

## References

Ross N. P., et al., 2007, MNRAS, 381, 573

Table 1: From <http://osxdaily.com/2007/03/30/mac-os-x-directory-structure-explained/>

Directory	Description
/	Root directory, present on virtually all UNIX based file systems. Parent directory of all other files
/Applications	Self explanatory, this is where your Macs applications are kept
/Developer	The Developer directory appears only if you have installed Apples Developer Tools, and no surprise, contains developer related tools, documentation, and files.
/Library	Shared libraries, files necessary for the operating system to function properly, including settings, preferences, and other necessities (note: you also have a Libraries folder in your home directory, which holds files specific to that user).
/Network	largely self explanatory, network related devices, servers, libraries, etc
/System	System related files, libraries, preferences, critical for the proper function of Mac OS X
/Users	All user accounts on the machine and their accompanying unique files, settings, etc. Much like /home in Linux
/Volumes	Mounted devices and volumes, either virtual or real, such as hard disks, CDs, DVDs, DMG mounts, etc
/bin	Essential common binaries, holds files and programs needed to boot the operating system and run properly
/etc	Machine local system configuration, holds administrative, configuration, and other system files
/dev	Device files, all files that represent peripheral devices including keyboards, mice, trackpads, etc
/usr	Second major hierarchy, includes subdirectories that contain information, configuration files, and other essentials used by the operating system
/sbin	Essential system binaries, contains utilities for system administration
/tmp	Temporary files, caches, etc
/var	Variable data, contains files whose contents change as the operating system runs

Table 2: The Lines

Name	Wavelength / Å	Transition	Rest Passband	Interpreation
Lyman- $\alpha$	1215.67	2 to 1	$\sim$ FUV	Major QSO line
Lyman- $\beta$	1025.18	3 to 1	$\sim$ FUV	
Lyman- $\gamma$	972.02	4 to 1	$\sim$ FUV	
Lyman Limit	911.27	$\infty$ to 1	$\sim$ FUV	
H- $\alpha$	6563.	3 to 2	R,r	Recent major SF or AGN activity
H- $\beta$	4861.	4 to 2	B,V,g	
H- $\gamma$	4341.	5 to 2	U,B,u	
H- $\delta$	4102.	6 to 2	$\sim$ FUV	
Balmer Limit	3646.	$\infty$ to 2	$\sim$ FUV	
HI	3646.	$\infty$ to 2	$\sim$ FUV	Previous SF history
HII	3646.	$\infty$ to 2	$\sim$ FUV	
HeI	3646.	$\infty$ to 2	$\sim$ FUV	
HeII	3646.	$\infty$ to 2	$\sim$ FUV	
HeIII	3646.	$\infty$ to 2	$\sim$ FUV	
CIV	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
OII	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
OIII	3646.	$\infty$ to 2	$\sim$ FUV	Recent major SF line
OIII	5007.	$\infty$ to 2	$\sim$ FUV	Recent major SF line
Ca II H	3999.	$\infty$ to 2	$\sim$ FUV	Old stellar pop
Ca II K	4001.	$\infty$ to 2	$\sim$ FUV	Old stellar pop
NII	5007.	$\infty$ to 2	$\sim$ FUV	
NeV	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
[OIII $\lambda$ 5007/ H $\beta$ ] [NII $\lambda$ 6583/ H $\alpha$ ]				“BPT” diagram reliable tool for determining source of line emission from a galaxy visually differentiating between Seyferts, LINERs and SF gals. However “low” redshifts since need H $\alpha$ , (not at $z \sim 1$ ). Modified BPT with ( $U - B$ ) colour replacing [NII $\lambda$ 6583/ H $\alpha$ ] e.g. Montero-Dorta, 0801.2769.
[SII $\lambda$ 6583/ H $\alpha$ ]		$\infty$ to 2	$\sim$ FUV	Major QSO line
[ $\alpha$ /Fe]	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
NV	1???..67	2 to 1	$\sim$ FUV	Major QSO line
SiIV	1???..67	2 to 1	$\sim$ FUV	Major QSO line
CIV	1???..67	2 to 1	$\sim$ FUV	Major QSO line
CIII]	1???..67	2 to 1	$\sim$ FUV	Major QSO line
MgII	1???..67	2 to 1	$\sim$ FUV	Major QSO line