0. Checking your software installation

Aims and objectives

- Check that your software has been correctly installed on your laptop

- Learn the basic usage instructions for the software

Who to find if you get stuck

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1 Does the internet work?

Load a web browser and test that the internet connection is working by searching for the papers on astro-ph. (http://arxiv.org/archive/astro-ph). Note: if you are using a pre-installed computer you may need to find a web-browser by clicking on "Applications". For these worksheets you will be using tempo2, presto and psrchive. Download the recent tutorials on these topics from arXiv:1206.0588, arXiv:1205.6273 and arXiv:1205.6276.

Can you access the internet?

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Are all members of your group experienced with using a unix-based system? If not, find an online tutorial that demonstrates the basic functionality. (We recommend http://www.ee.surrey.ac.uk/Teaching/Unix/)

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Add your name and a description of your work in the relevant forum on the student workshop webpage: http://ipta.phys.wvu.edu/

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(Don't panic if the internet is not working. All the required data files have been installed on the computers.)

2 Does tempo2 work?

Obtain an x-terminal or a terminal and type in

```
> tempo2 -h
```

The output should provide some basic usage instructions and list all the available plugins.

How many plugins are available on your computer?

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It is essential that the TEMPO2 environment variable is set. You can view this by typing:

```
> echo $TEMPO2
```

3   Does psrchive and PGPLOT work?

You should have some pre-loaded data in a directory called "data". Run the following commands:

```
> cd ~/data/module1/1713_pulsar_data_archive/
> pav -CD *.FTp
```

You should see lots of observations of PSR J1713+0747. These observations will be used in module 1.

Now we'll test whether we can obtain pulse arrival times (this will be explained in detail in module 1):

```
> pat -s t090211_215434.FTp -f tempo2 *.FTp
```

This should list out five columns of information. The last column gives the observatory site code which should be "7" for data from the Parkes telescope. (Note: an incorrect installation may give a "0" in this column. Please confirm that your installation is correct.)

4   Does presto work?

Presto is used when searching for pulsars. It requires the PRESTO environment variable that can be checked using:

```
> echo $PRESTO
```

Some search mode file exist in your data directory:

```
> cd ~/data/module2
```

The data files are in PSRFITS format. Type in:

```
> readfile
```

to obtain a list of command-line arguments for the "readfile" software.

What was the sample time used for 1857.sf?

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