Pythia download and installation

Version: pythia 8.2.19

Steps:

1. Download pythia from the following page
   http://home.thep.lu.se/~torbjorn/Pythia.html

Installation

Click here to download pythia8219.tgz file

To get going with the program, do the following (on a Linux or Mac OS X system):

- Download the file `pythia8219.tgz` to a suitable location.
- Unzip and expand it with `tar xvfz pythia8219.tgz`.
- Move to the thus created `pythia8219` directory.
- Read the `README` file in it for installation instructions, and apply them.
  (If you are not going to link any external libraries, or have any other special

2. Move pythia8219.tgz to your home directory (farm or local, I will use my farm directory as an example)

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3. In your home directory unzip the pythia8219.tgz file

```
[zhengl@iopp040 ~]$ tar -zxvf pythia8219.tgz
```

then you will find

```
[zhengl@iopp040 ~]$ ls
abc.C            Eic-smear-1.0.3.tar.bz2   py_source
AMPT             exercise                  pythia8201
bashrc           f1.png                    pythia8201.tgz
bashrc_copy      glauber                   pythia8219
blastwave        gluon_sivers              pythia8219.tgz
```

Unzipped file

4. Change to your pythia8219 directory

```
[zhengl@iopp040 ~]$ cd pythia8219
```

and then configure your setup procedure with the path to keep your installed pythia files

```
[zhengl@iopp040 pythia8219]$ ./configure --prefix=$HOME/install/pythia8
```

5. Create your install directory and then compile the source code

```
[zhengl@iopp040 pythia8219]$ mkdir -p $HOME/install/pythia8
[zhengl@iopp040 pythia8219]$ make
```

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6. After a long compilation, now you can install it

```
[zhengl@iopp040 pythia8219]$ make install
```

then you will find following directories in your selected prefix path

```
[zhengl@iopp040 pythia8219]$ ls $HOME/install/pythia8
bin   include   lib   share
```

7. Setup your PYTHIA8DATA environment variable
In your .bashrc file, add the following environment variable

```
export PYTHIA8DATA=$HOME/install/pythia8/share/Pythia8/xmldoc
```

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8. Test your pythia installation
cd to your installed pythia example directory

```
[zhengl@iopp040 pythia8219]$ cd $HOME/install/pythia8/share/Pythia8/examples/
```

then compile your example01

```
[zhengl@iopp040 examples]$ make main01
```

after that, run this program

```
[zhengl@iopp040 examples]$ ./main01
```

If you see following by the end of output, then congrats, installation done!

```
        *10^ 0   18642086420864208642086420864208642086420864208642086420864208642086420864208642

Entries  =          100    Mean =   1.8950e+02    Underflow =   0.0000e+00    Low edge  = -5.0000e-01
All chan =  1.0000e+02     Rms  =   6.1961e+01    Overflow  =   0.0000e+00    High edge =  7.9950e+02
```