Plotting.py

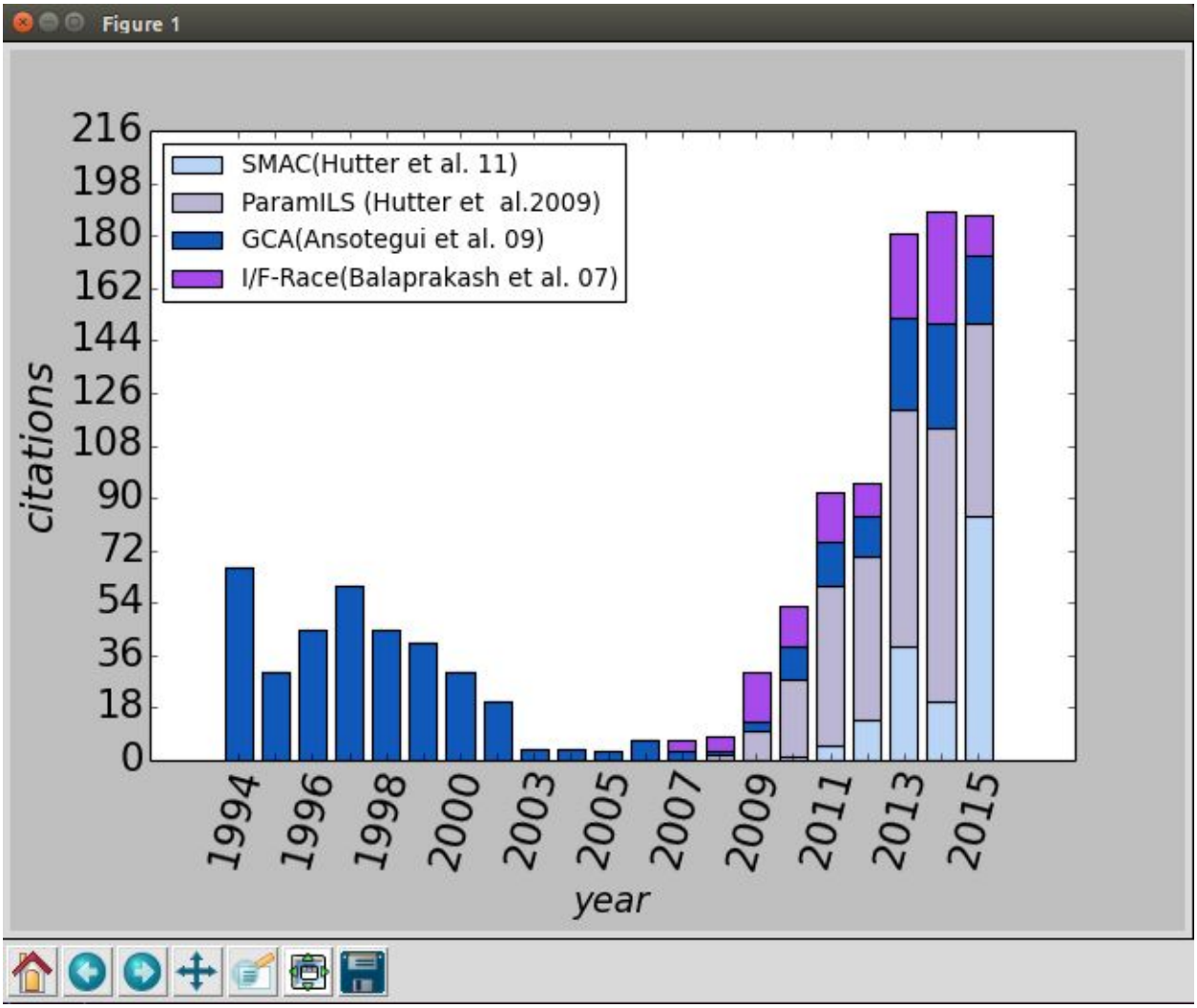
Python script which takes as input a csv file with 3 columns and generates a plot. The first column must be a list of objects. The second one a list of years and the third one the a list of numbers of the time in which the list of the first column appeared in a year

Basic usage:

The script take as input the name of the .csv file containing the data as its mandatory argument. Other optional arguments will be described in the next section.

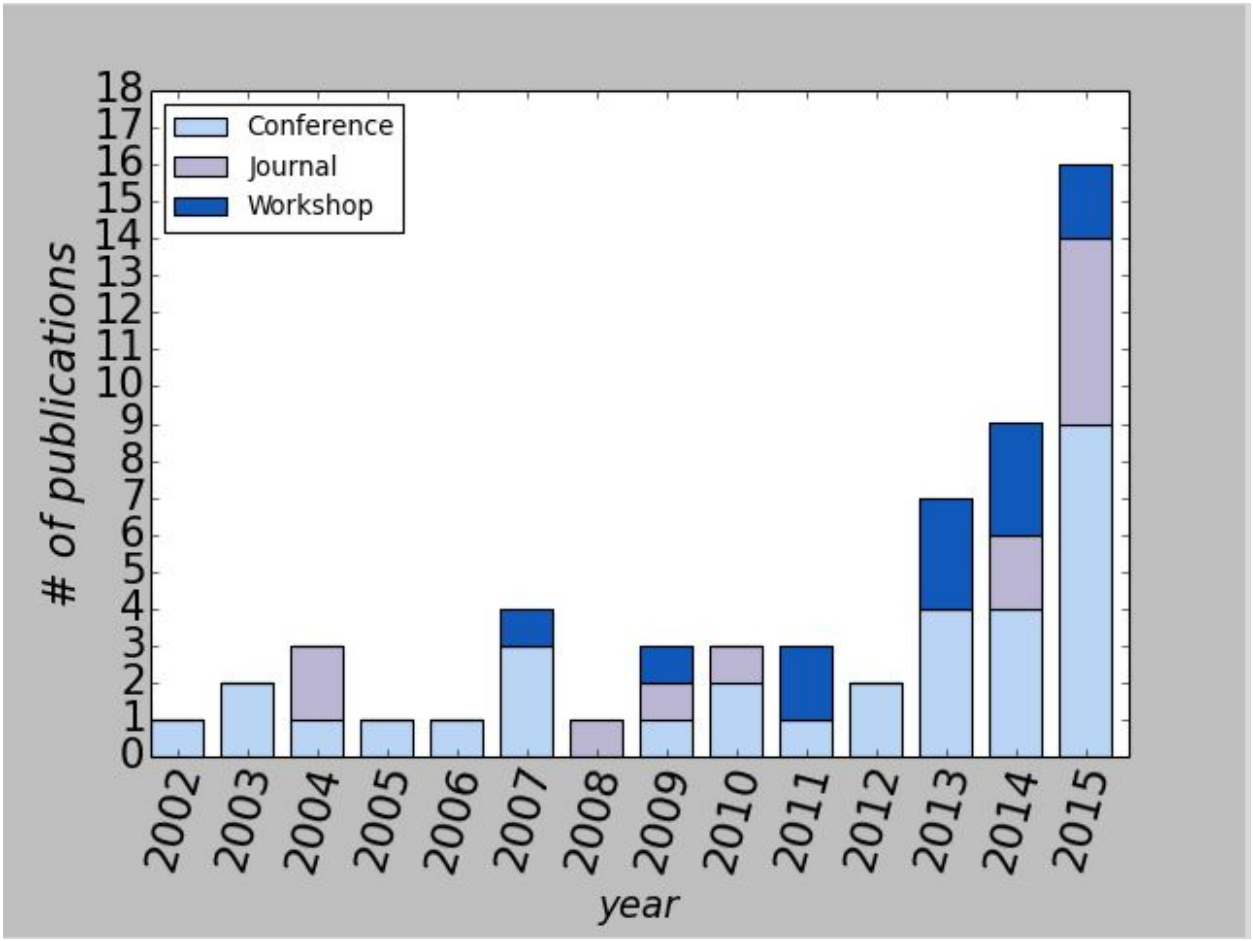
```
$ python plotting.py Data.csv
```

Data.csv contains 3 columns, [“paper”,”year”,”citations”].
Running the above command with above data (uploaded on github) will give us the following results.



Running the same script with a CSV file with different headers [“Type of publication”, ”year”, “# of publications”) will now give us a graph according to the data. The X and Y labels are picked up from the csv header.

```
✗ python plotting.py fh_papers.csv
```



Note that the Y-Label have changed.

Arguments in the plotting.py :

We have 1 mandatory argument and 3 optional arguments.

```
✗ python plotting.py fh_papers.csv --color no --pdf papers --order Conference Workshop Journal
```

--pdf

Use this argument to give a name to the pdf file generated. If you don’t use this argument, a pdf file will still be generated and the default name of the graph will be ‘default.pdf’ .

```
✗ python plotting.py fh_papers.csv --pdf papers
```

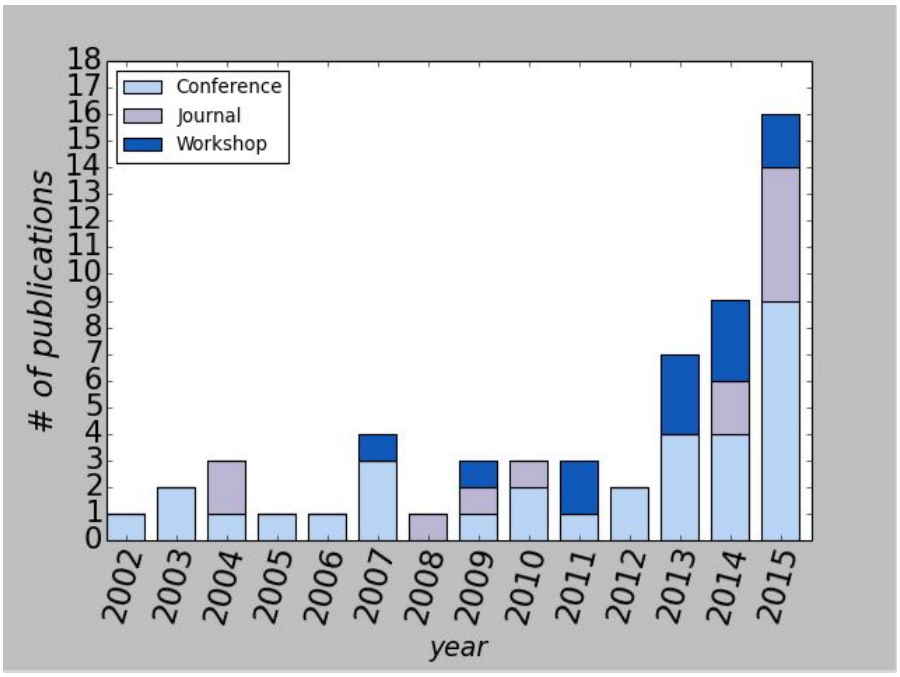
This command will save the pdf file as “papers.pdf”

--color

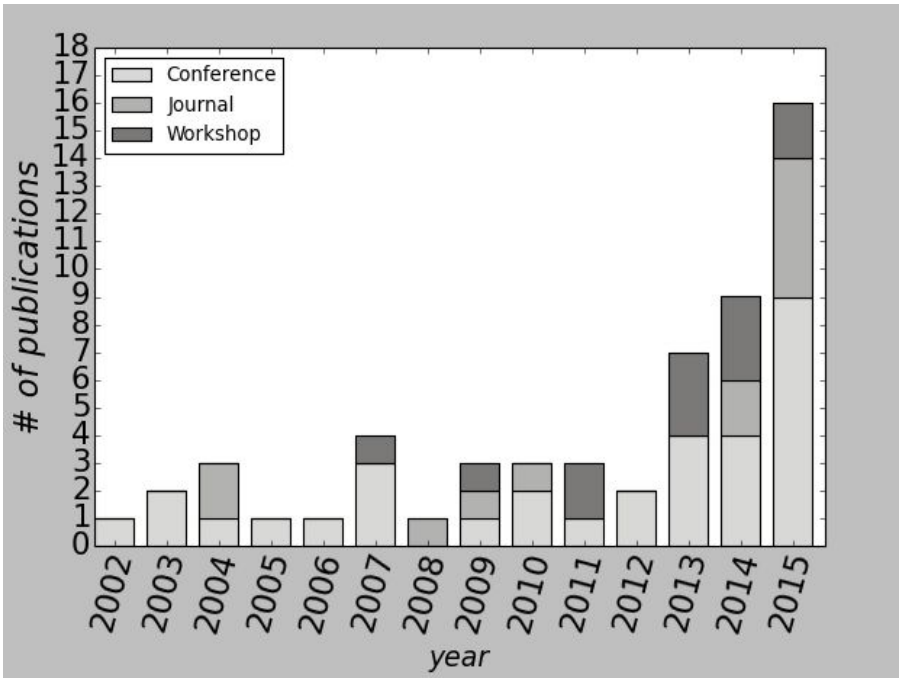
Use this argument to generate coloured or black and white graphs.

```
✗ python plotting.py fh_papers.csv --color yes
```

Will generate:




```
✗ python plotting.py fh_papers.csv --color no
```



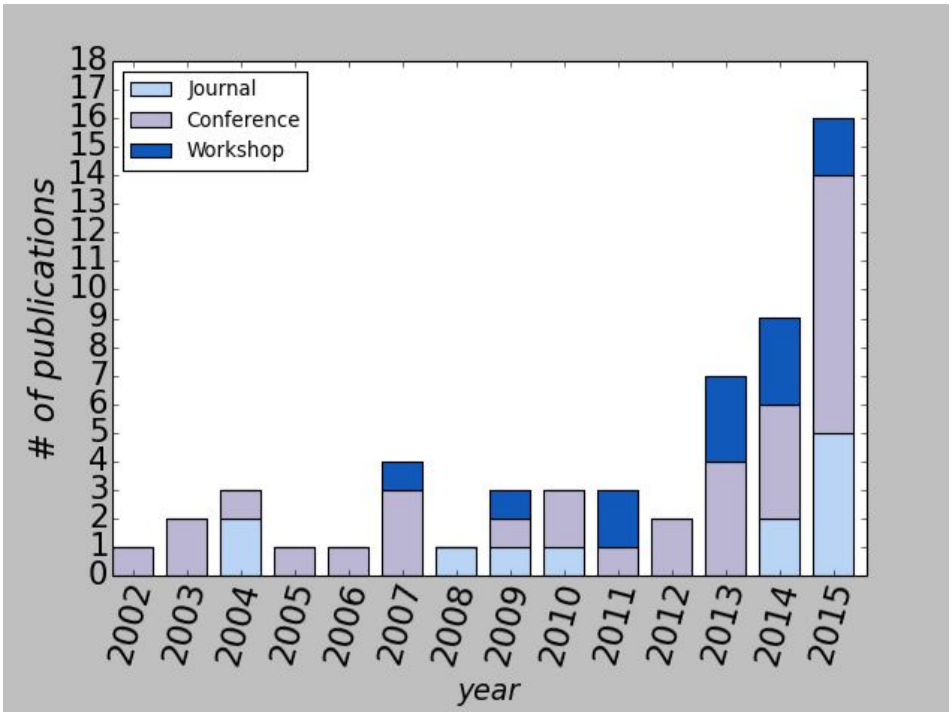
The default behavior is set to “yes”.

--order

Use this argument to set the order of the stack in the bar.

For example if you want “**Journal**” to be the lowest, then “**Conference**” and then “**Workshop**”, write them in precisely this order after the “--order” argument.

```
✗ python plotting.py fh_papers.csv --order Journal Conference Workshop
```



Methods in the plotting.py :

csv_reader(filepath):

Takes as input the csv file and returns a dict of the following form:

{column1:{column2:column3, column2 : column3, column2 : column3} , column1:{column3: column3, column2 :column3} .

plotter(dictionary):

Takes as input the dict provided by the method csv_reader( ) and plots the citation data in the form of stack bars.