Manual for "*vegas-outliner*"

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PCM Computational Applications

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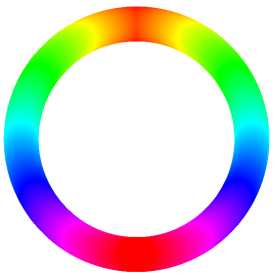

Figure 1: HSV scheme color.

vegas-outliner is a python script that shows the final spin structure for a sample. The color of the spin is given by a HSV color, which depends of the angle that form with certain axis, given in the options (fig. 1).

1 Requirements

- povray

  sudo apt-get install povray

- numpy and click

  sudo pip3 install numpy

  sudo pip3 install click

2 Usage

python3 vegas-outliner.py [OPTIONS] FILE

FILE is a file, of course, with the format:

x y z type sx sy sz

Each line corresponds to one ion. **x**, **y** and **z** correspond to the spatial position of the particle. **type** can be a string or a number that distinguish the type of the particle. **sx**, **sy** and **sz** correspond to the spin of the particle.

[OPTIONS] can be consulted with python3 vegas-outline.py –help.

It is possible that the options **ratio_x** and **ratio_y** confuse you. For this reason, 2 shows a schematic representation to help you to understand those options.

$$\text{ratio\_x} = \frac{R}{r}$$

$$\text{ratio\_y} = \frac{H}{h}$$

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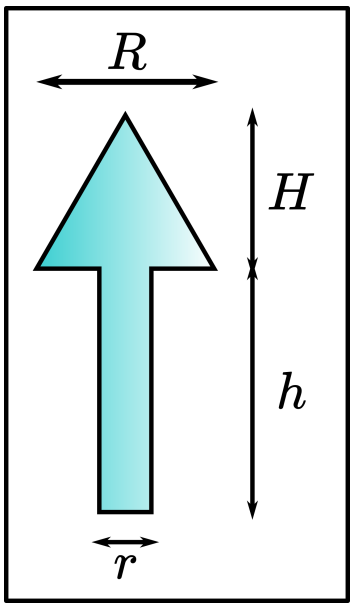

Figure 2: Ratios for the arrows.

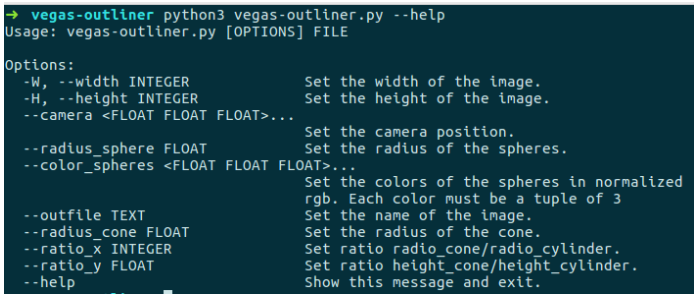

Figure 3: Options for *vegas-outliner*

ratio_x must be equal or greater than 1.0. Finnaly, **camera** is the camera spatial position, which always is looking up to the sample centroide.

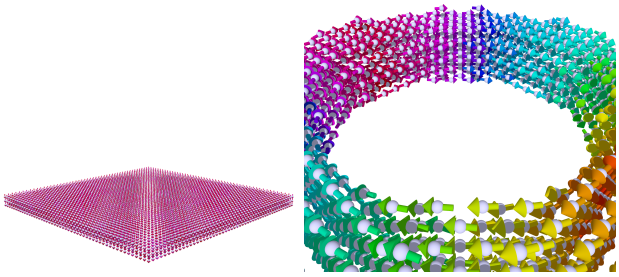

Figure 4: Example for a thin film.