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# compy Documentation

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# CHAPTER 1

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This is the Moments documentation.

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## 1.1 Get the seeds

`moments.get_seeds(directory)`

This function gets all the seeds from our runs. :param directory: :return:

## 1.2 Get the paths

`moments.get_data_paths(directory, seeds)`

Using the directory and the seeds create the paths to each position file. :param directory: :param seeds: :return:

## 1.3 Zero Moments

`moments.zero_moment(pos)`

This calculates the total number of particles in the media. The 0th moment :param pos: :return:

## 1.4 nth moment

`moments.mom(n, position, time, m0, norm=True)`

This method is used to compute the nth spatial moment, normalized or not :param n: :param position: :param time: :param m0: :param norm: :return:

## 1.5 Compute and save zero

`moments.zero_moment_compute_and_save(seeds, paths, time, files)`

This function is used to compute all the zero moments involving our positional data and then saves them to files.

:param seeds: :param paths: :param time: :param files: :return:

## 1.6 Compute and Save

`moments.nth_moment_compute_and_save(nth, seeds, paths, time, files)`

This function is used to compute all the nth moments we specify involving our positional data and then saves them to files. :param seeds: :param paths: :param time: :param files: :return:

# CHAPTER 2

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## Indices and tables

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