![System requirements](https://img.shields.io/badge/python-3.8-red.svg)

![System requirements](https://img.shields.io/badge/platform-win%2064,%20linux%2064-green.svg)

[![License: GPL v3](https://img.shields.io/badge/license-GPLv3-blue.svg)](https://www.gnu.org/licenses/gpl-3.0)

# Analysis code for “the role of protein shape in multiphasic separation within condensates”

The GitHub space contains analysis programs for the study “the role of protein shape in multiphasic separation within condensates” by Vikas Pandey, Tomohisa Hosokawa, Yasunori Hayashi, Hidetoshi Urakubo [1].

All programs were written in Python3.8 (Windows) and designed for the analyses of output from LASSI simulation engine [2].

[1] https://www.biorxiv.org/content/10.1101/2024.08.26.606306v1

[2] https://github.com/Pappulab/LASSI

| directory | contents |

| -------- | -------- |

| \*\*`bin`\*\* |Executable programs. |

| \*\*`lib`\*\*| Shared libraries. |

| \*\*`workspace`\*\*| Accessary programs. |

| \*\*`obsolete`\*\*| Obsolete programs. |

Analyses were conducted through two steps. The first was the conversion from lammpstrj files to intermediate data files. The second was the

### specification\_datasets.py

Specifies the Information of lammpstrj files and intermediate data files.

Under documentation...

### lib directory files

Files in this directory are shared by the following executable Python files.

### all1\_edit\_data.py

All of the beginning, Simulated lammpstrj files were translated into the dict variable d that contains many.

### all2\_edit\_connectivity\_graph.py

All of the beginning, Simulated lammpstrj files were translated into the dict variable d that contains a network multigraph and generated connectivity info.

### all3\_plot\_profile.py

### all4\_plot\_profile\_3d\_ovito.py

### all5\_plot\_profile\_3d\_pyvista.py

### all6\_plot\_video\_3d\_ovito.py

### all7\_plot\_profile\_shared\_PSD95.py

### both1\_plot\_matrix.py

### both1\_plot\_matrix\_3d\_pyvista.py