



Discrete Element Method (DEM) is a computational technique that allows particle motion in various types of equipment to be simulated. This technique is applied in a variety of fields, ranging for pharmaceutical to mineral processing. However the simulation of certain industrial machines requires breakage of the particles to be included on the DEM environment.

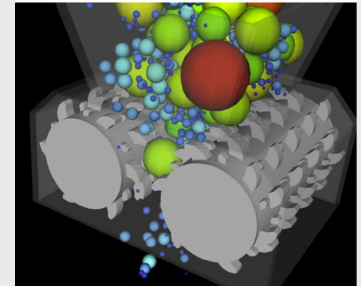
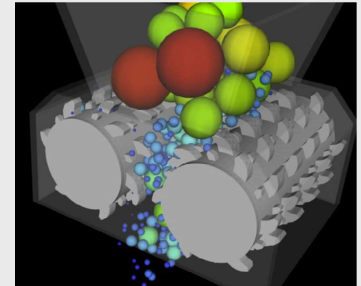
This project proposes the implementation particle breakage models, from the literature, in the DEM simulation algorithm. The implementation will be done in LIGGGTHS, a open source DEM simulation tool.

Possible working packages:

- Literature review
- Training on the LIGGGTHS architecture
- Implementation of preliminary breakage models
- Validation with experimental data

Helpful, but not mandatory:

- Coding experience
- DEM simulations



Studien- and Master thesis are available for this project.

The project can be adapted for students of bio-, chemical and pharmaceutical engineering, mechanical engineering and informatics.

Feel free to contact me for a brief conversation about this or other possible topics.

Start:

Any time

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