

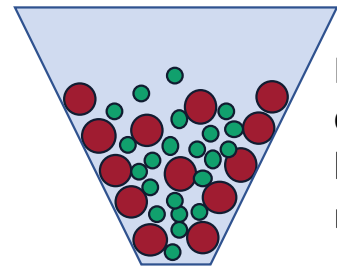
Open PhD position in modelling of cohesive industrial scale particle flows with broad particle size distributions

The **Department of Particulate Flow Modelling** and the **Christian Doppler Laboratory for Multi-scale Modelling of Multiphase Processes** at the Johannes Kepler University, Linz, Austria, have substantial knowledge in modeling and simulating particulate multiphase flows. Our research focus is the description of industrial-size systems based on a proper understanding of the physical core phenomena present on micro and meso scales. To overcome the severe limitations of DEM due to the large number of particles involved, a parcel approach (a specific number of real particles is replaced by a parcel) is required for industrial scale applications. However, such a parcel method does not reveal the correct packing density since the small particles are replaced by larger parcels.

We are looking for a researcher to further develop this method for broad particle size distributions within a 1 year project.

The position covers:

- Modelling, implementation and simulation of cohesive particle flows (LIGGGHTS)
- Application of the above methods to industrial processes
- Close contact with industrial partner



Our prospective researcher student will be embedded in a team of 15+ researchers (6 postdocs) with a strong focus on multi-scale modelling of multiphase flows. Furthermore, this project will be in close collaboration with major European refractory industry and international research institutes. Salary will account to about 2.929,00€/month (master degree) respectively 3.889,50€/month (PhD degree) 14 times a year. The project should start as soon as possible.

We are looking for researchers in the field of **physics, mathematics or engineering science**. Candidates should have experience in numerical simulations of fluid and granular flows as well as an appropriate master degree.

Your application should be sent by email (pdf file) to simon.schneiderbauer@jku.at.

Simon Schneiderbauer