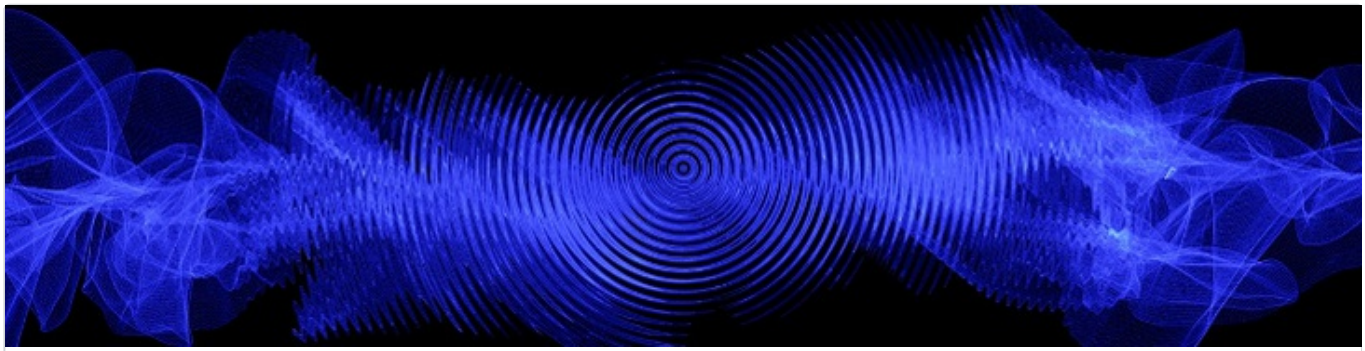
OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

WORKGROUP FOR MULTIPHAS FLOWS



Particle-laden flows, particle deposition, particle separation

Current Projects:

› Analysis and modelling the coating of solid particles
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Analysis+and+modelling-e+coating+of+solid+particles.html)

› Particles in contact - Calculation of the detachment of fine particles (LBM 3D)
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Particle+in+Contact+_+Calculation+of+the+detachment+of+fine+particles+%28LBM+3D%29-p-84.html)

› Wall collisions of non-spherical particles
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Wall+collisions+of+non_spherical+particles-p-86.html)

› Agglomeration and breakage in cyclones
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Influence+of+the+agglomeration+and+breakage+of+particles+on+the+performance+of+cyclone+separators.html)

› Erosion in gas-solid flows
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Development+of+models+and+database+for+studies+of+erosion+in+gas_solid+flows+by+using+experiment+and+numerical+techniques-p-90.html)

› Development of a 3 fluid model based on the Lattice-Boltzmann method
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Development+of+a+3+fluid+model+based+on+the+Lattice_Boltzmann+method-p-214.html)

Completed Projects:

› Turbulent colloidal systems (LBM 3D)
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Turbulent+colloidal+systems.html)

› Thermo - chemical resistent Coderit
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Thermo+chemical+resist+particle+filters+for+diesel+application.html)

› Non spherical particles in flows
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Turbulent+flows+with+no

+spherical+particles.html)

› Spatial distributed coupling for Euler/Lagrange methods
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Spatial+distributed+coupl
+Euler_Lagrange+methods-p-98.html)

› Disperse multi phase flows
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Disperse+multiphase+flo
html)

› Dust streaks in swirl flows
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Dust+streaks+in+closed+
irl+flows.html)

› Particle deposition concerning agglomeration
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Particle+deposition+cons
ring+agglomeration.html)

› Horizontal channel flow
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Horizontal+channel+flow.
ml)

› Electrostatically assisted production of powder coatings
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Electrostatically+assisted
roduction+of+powder+coatings.html)

› Calculation of an electrostatic precipitator
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Calculation+of+an+electr
atic+precipitator.html)

› Particle agglomeration and agglomerate structure
(https://www.mps.ovgu.de/mps/en/Research/Multiphase+Flows/Particle_laden+flows_+particle+deposition_+particle+separation/Particle+agglomeration+a
+agglomerate+structure.html)