

WCPT9-JE

Multidimensional particle properties: characterization, separation, application

As part of WCPT9 this Joint Event on “Multidimensional particle properties: characterization, separation, application” will be organized.

The priority program 2045 of the German Science Foundation funds about 20 projects with more than 25 PhD-students, which aim at separating particles below 10 μm according to more than one property. Particles for instance are separated in size and shape or in size and composition. This multidimensional view on particle systems requires the description of all involved processes with multidimensional property distributions. Besides the established size distribution, further properties can be distributed, e.g. composition (intergrowth), shape, reactivity, surface properties, ... This second distribution cannot be seen independently from the PSD, which leads to the definition of two- and multidimensional distributions, which contain particle discrete information of all particles involved. Particle discrete information is a specific information vector for each particle (or each multidimensional particle class), which contains size information, e.g. characteristic diameter like EQS or FERET, shape information, e.g. sphericity as well as further information. Based on these data sets it is possible to set up multidimensional partition curves to describe the separation processes investigated, e.g. magnetic separation, flow field separation, interfacial separation and field enhanced separation.

The joint event will present the results of the priority program, but it will also invite further international researchers who are active in multidimensional particle-systems.

Organizer:



Institute of Mechanical Process Engineering and Mineral Processing
TU Bergakademie Freiberg
Germany

Further information at: www.wcpt9.org

You are welcome to submit your abstract for this WCPT9-JE through the submission platform selecting the tab: **Multidimensional particle properties: characterization, separation, application.**

The deadline for abstract submission is May 2nd.