S11 Particle-based methods in computational mechanics

Organizers:

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The session addresses modelling and simulation of materials and processes with computational methods using particles either as physical units or as discretization entities in (dis)continua. Contributions presenting developments and applications of different numerical methods such as Discrete Element Method (DEM), Material Point Method (MPM), Particle Finite Element Method (PFEM), Molecular Dynamics (MD) and Smoothed Particle Hydrodynamics (SPH), etc. are welcome. Multiscale modelling as well as coupling of different methods, with the use of particle-based methods, are within the scope of interest. The session is open for different practical applications, including among others geomechanics, materials science, chemical engineering, biomechanics, mechanical and civil engineering.