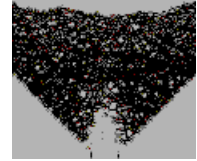
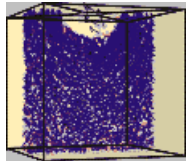

Pfc2d

PFC2D (Particle Flow Code in 2 Dimensions) is a program for modeling the movement and interaction of assemblies of arbitrarily-sized circular particles. The particles may represent individual grains in a granular material or they may be bonded together to represent a solid material, in which case, fracturing occurs via progressive bond breakage. Solution by the distinct-element method allows dynamic stress waves to propagate through the particle assembly, which may exhibit slip or separation, with unlimited displacement, under the action of applied loading. Bonded assemblies exhibit complex macroscopic behaviors such as strain softening, dilation, and fracture that arise from extensive microcracking. The particles are rigid but deform locally at contact points using a soft-contact approach, in which finite normal and shear stiffnesses are taken to represent measurable contact stiffnesses.



Any property or parameter, including particle radius, may be changed at any time during a simulation. The PFC2D codes are ideal research tools, because they provide a powerful and flexible simulation environment within which one can create instances of different synthetic materials, subject them to general loadings, and observe their behavior. In addition to modeling bulk flow and mixing of materials, the codes are also well-suited to support fundamental studies of micro- and macro-cracking in solid bodies including damage accumulation leading to fracture, dynamic breakage and seismic response.



For further information please refer to the following URL: <http://www.itascacg.com/software.html#pfc3d>

Platform: Windows NT

License restrictions: none

Number of copies: 10

Requested by: J. J. Lannutti
