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Prediction of the Structural Properties of Powder Materials by 3D Modeling Methods

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Abstract:

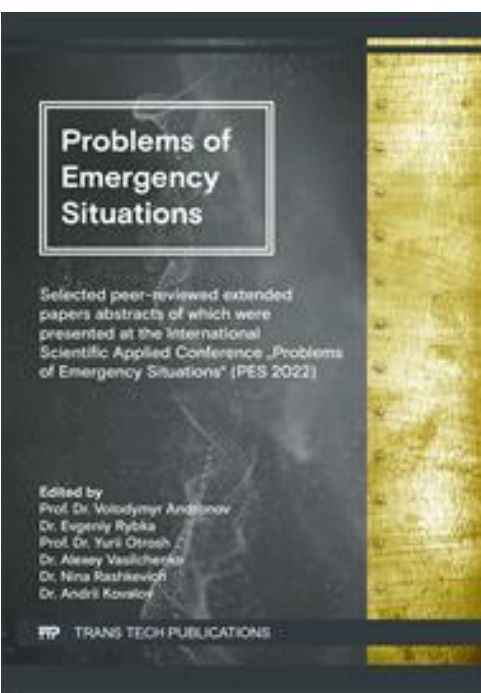
This article examines the main problems of modelling spherical (circular) particles. The main method of the initial process of filling lobules using the Cauchy and Reynolds problem is substantiated. An image of an object-oriented complex of free fall of a spherical particle and their many non-collision spheres is presented. Based on the obtained research results, the main parameters of the process of filling particles of heterogeneous materials. An example of visualization of the developed software product for filling material particles is given, taking into account a number of cross-sections of a cylindrical hopper in height. A histogram of the distribution of material particles from porosity over the volume of a cylindrical hopper is also constructed.



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