



Grainsize and pore size changes due to the flow of granular materials

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Granular materials exhibit behaviour which can cause spatial or local changes in their grainsize distribution, such as crushing, mixing and segregation. These mechanisms are modelled simultaneously using a cellular automaton, and the complex phenomena that emerge as they interact are explored. We find that either power law or log-normal grainsize distributions can develop. Finally, detailed information about the evolution of the local grainsize distribution is used to describe the evolution of the pore size distribution.