Accepted Manuscript

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PII:	\$0013-7944(15)00657-8
DOI:	http://dx.doi.org/10.1016/j.engfracmech.2015.11.006
Reference:	EFM 4958
To appear in:	Engineering Fracture Mechanics
Received Date:	24 August 2015
Revised Date:	11 November 2015
Accepted Date:	14 November 2015



Please cite this article as: Guo, L., Xiang, J., Latham, J-P., Izzuddin, B., A numerical investigation of mesh sensitivity for a new three-dimensional fracture model within the combined finite-discrete element method, *Engineering Fracture Mechanics* (2015), doi: http://dx.doi.org/10.1016/j.engfracmech.2015.11.006

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A numerical investigation of mesh sensitivity for a new three-dimensional fracture model within the combined finite-discrete element method

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Abstract

Recently a new three-dimensional fracture model has been developed in the context of the combined finite-discrete element method. In order to provide quantitative guidance for engineering applications, mesh size and orientation sensitivity are investigated by specially designed numerical tests. The mesh size sensitivity is analysed by modelling a single tensile fracture propagation problem and three-point bending tests using a series of models with the

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