

Failure Simulation of Small-scale Walls with Chases Using the Lattice Discrete Element Method

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Abstract : This work aims to represent Numerically tests experimentally developed in reduced scale walls with horizontal and inclined cuts by using the Lattice Discrete Element Method (LDEM) implemented On de Abaqus/explicit environment. The cuts were performed with depths of 20%, 30%, and 50% On the walls subjected to centered and eccentric loading. The parameters used to evaluate the numerical model are its strength, the failure mode, and the in-plane and out-of-plane displacements.

Keywords : structural masonry, wall chases, small scale, numerical model, lattice discrete element method

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