

NONLINEAR MODEL OF MASONRY WALL

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Summary: In this paper they are presented a short history and current trends in an investigation of masonry structures. Based on the analysis of geometric and mechanical properties of brick and mortar, the concept of "elementary block" was proposed as the basis for the analysis of masonry structures in limit states. The behavior of elementary block was tested under action of eccentric compressive force assuming material nonlinearity. The elementary block was then used to analyze segment of a masonry wall.

Key words: Masonry structures, material nonlinearity, elementary block, bearing capacity.



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