Parametric studies on the linear buckling behaviour of composite laminate plates with delaminations

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ABSTRACT

A methodology, using COSMOS/M licensed soft, to determine thelinear buckling behaviour of composite laminate plates with elliptical delaminations is described. Parametric analysis is done since the influence of the position and the ellipse's diameters ratio of delaminated zone on the critical buckling force was investigated. Taking into account the thickness symmetry of the plates, are presented only cases of position of delamination on one side of symmetry axis. For each position of delamination there are plotted variation of the transversal displacement of the point placed in the middle of the plate, according to the pressure that has been applied.

Keywords: finite element analysis, composite plates

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