Prediction of the Compressive Strength of Longitudinally Stiffened Plates Undergoing Buckling Interaction

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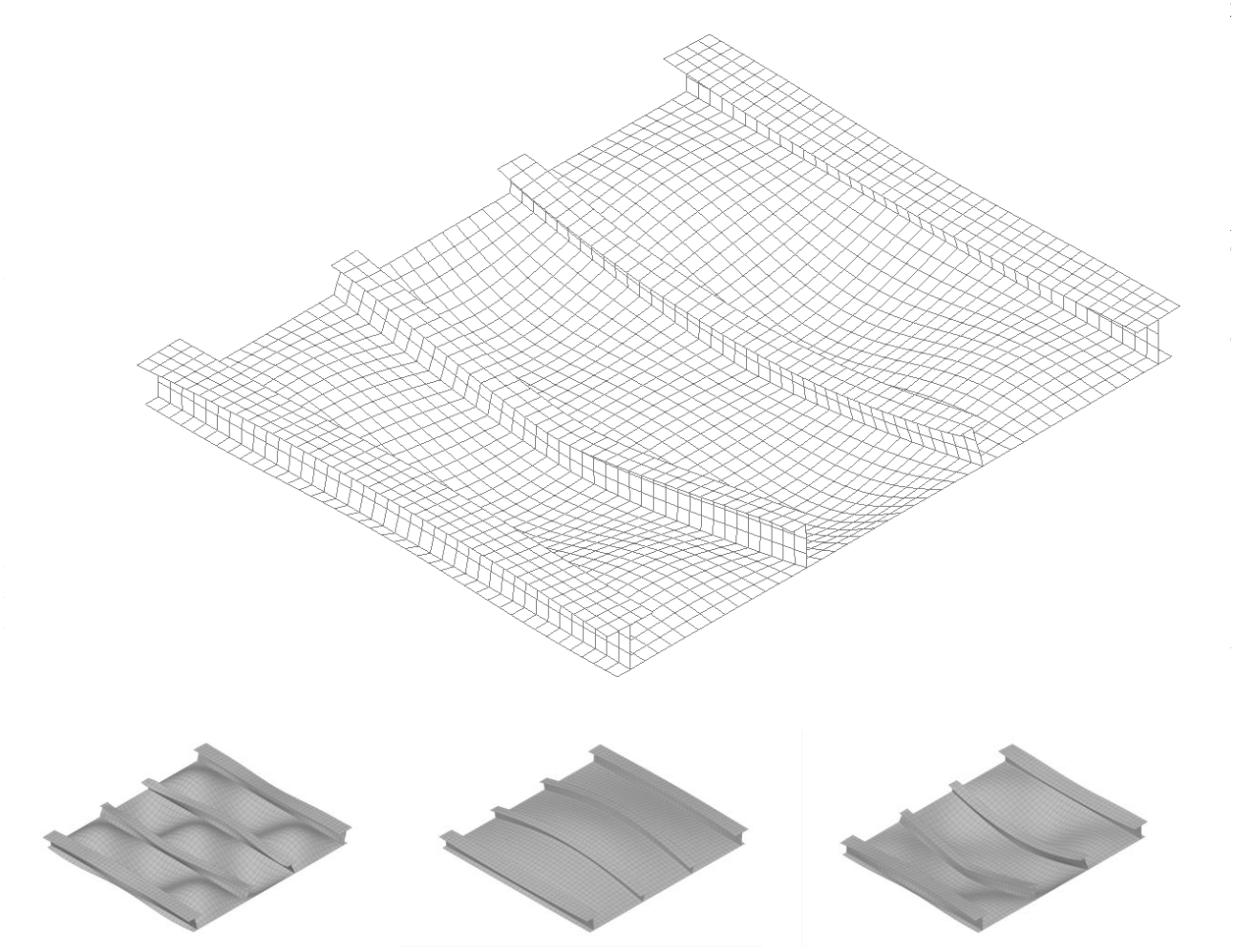
Summary

A finite element research on the ultimate strength of longitudinally stiffened plates in axial compression is presented. The longitudinally stiffened plate in compression normally buckles in one of two basic buckling modes, local or distortional. However, it may also buckle in the interacted



(a) local buckling *(b) distortional buckling* *(c) mixed mode buckling*

Fig. 1: Buckling modes of stiffened plates subjected to uniform compression

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