Experimental Analysis of Composite Timber-Concrete Wall Element

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Summary:

The authors present an experimental and theoretical study on a composite or hybrid element used in residential and agricultural buildings. The composite wall element consists of timber studs connected to a concrete plate by means of nail plate shear connectors. Experimental results are presented and compared with an analytical model for partial composite action. A good agreement is obtained between the analytical and experimental results. Also, some suggestions to improve the design of the composite element are discussed.

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