# Introduction of Concentrated Loads in CLT Wall Elements Parallel to Plane – Analytical Model for the Determination of Stresses and Simplification for Practice



Author: Bogensperger, Thomas
Augustin, Manfred

Year of Publication: 2016
Country of Publication: Austria
Format: Conference Paper
Material: CLT (Cross-Laminated Timber)
Application: Walls
Topic: Mechanical Properties
Keywords: Stress
Concentrated Loads
Language: English
Conference: World Conference on Timber Engineering
Research Status: Complete
Notes: August 22-25, 2016, Vienna, Austria
p. 2332-2340

Summary:

In this paper a proposal for the computation of stresses into orthotropic panels (e.g. CLT wall elements) caused by concentrated local load introduction in plane is derived on the basis of linear elastic mechanics. In practice the concept of effective width is often applied for the approximate determination of stresses. On the basis of the elastic solution in this contribution a proposal for the determination of the effective width is submitted. In addition a proposal for the stability verifications by means of the effective width is given..



## Resource Link

http://hdl.handle.net/20.500.12708/172