



## Air-Coupled Ultrasound Propagation and Novel Non-Destructive Bonding Quality Assessment of Timber Composites

<https://research.thinkwood.com/en/permalink/catalogue13>

Author: Sergio Martín  
Organization: ETH Zurich  
Year of Publication: 2012  
Country of Publication: Switzerland  
Publication:  
Format: Thesis  
Material: Glulam (Glue-Laminated Timber)  
Application: General Application  
Topic: Mechanical Properties  
Keywords: Adhesives  
Bonding  
Delamination  
Failure  
Non-Destructive Testing  
Air-coupled Ultrasound (ACU)  
Finite-Difference Time-Domain (FDTD) model  
Language: English  
Research Status: Complete  
Online Access: Free

### Resource Link

<http://dx.doi.org/10.3929/ethz-a-7335172>



## High-Precision Pattern Recognition Wood Components with 3D Ultrasound

<https://research.thinkwood.com/en/permalink/catalogue937>

Author: Tomasz Nowak  
Kerstin Borchardt

Organization: University of Kassel

Year of Publication: 2013

Country of Publication: Germany

Format: Report

Material: Glulam (Glue-Laminated Timber)  
Solid-sawn Heavy Timber

Application: General Application

Topic: Mechanical Properties  
Serviceability

Keywords: 3D Ultrasound  
Cracks  
Non-Destructive Testing  
Decay

Language: German

Research Status: Complete

Online Access: Free

### Resource Link

[http://www.irbnet.de/daten/kbf/kbf\\_d\\_F\\_2849.pdf](http://www.irbnet.de/daten/kbf/kbf_d_F_2849.pdf)



## Non-Destructive Testing of Wood—Correlation of Ultrasonic and Stress Wave Test Results in Glued Laminated Timber Members

<https://research.thinkwood.com/en/permalink/catalogue1122>

Author: Tomasz Nowak  
Katarzyna Hamrol-Bielecka  
Jerzy Jasienko

Organization: Wroclaw University of Technology

Year of Publication: 2015

Country of Publication: Poland

Format: Journal Article

Material: Glulam (Glue-Laminated Timber)

Application: General Application

Topic: Mechanical Properties

Keywords: Non-Destructive Testing  
Ultrasonic Waves  
Stress Waves  
Physical Properties  
Spruce  
Wave Propagation

Language: English

Research Status: Complete

Series: Annals of Warsaw University of Life Sciences - SGGW

Online Access: Free

### Resource Link

[http://agro.icm.edu.pl/agro/element/bwmeta1.element.agro-9418364d-dd93-42e6-a17d-c7e56f06c00e?q=6d9c56ea-bf3a-4972-9e79-842c003571fa\\$1&qt=IN\\_PAGE](http://agro.icm.edu.pl/agro/element/bwmeta1.element.agro-9418364d-dd93-42e6-a17d-c7e56f06c00e?q=6d9c56ea-bf3a-4972-9e79-842c003571fa$1&qt=IN_PAGE)