



## Adaptation of Advanced High R-Factor Bracing Systems into Heavy Timber Frames

<https://research.thinkwood.com/en/permalink/catalogue1760>

Author: Gilbert, Colin  
Erochko, Jeffrey

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Glulam (Glue-Laminated Timber)

Application: Frames

Topic: Seismic  
Design and Systems  
Mechanical Properties

Keywords: Quasi-Static  
Cyclic Testing  
Ductility  
Damping Devices  
R-factors

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria  
p. 5068-5077

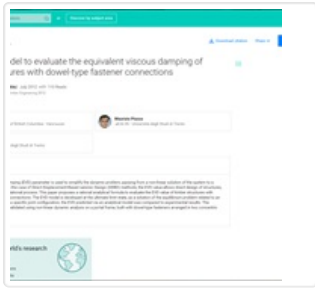
### Summary:

Timber provides attractive earthquake performance characteristics for regions of high seismic risk, particularly its high strength-to-weight ratio; however, current timber structural systems are associated with relatively low design force reduction factors due to their low inherent ductility when compared to high-performance concrete and steel...

Online Access: Free

### Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1650029>



# Analytical Model to Evaluate the Equivalent Viscous Damping of Timber Structures with Dowel-Type Fastener Connections

<https://research.thinkwood.com/en/permalink/catalogue1893>

Author: Loss, Cristiano  
Piazza, Maurizio  
Zonta, Daniele

Year of Publication: 2012

Country of Publication: New Zealand

Format: Conference Paper

Material: Timber (unspecified)

Application: Frames

Topic: Connections

Keywords: Equivalent Viscous Damping  
Moment Resisting Joints  
Dowel-Type Connections  
Non-linear Dynamic Analysis  
Metal Fasteners

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: July 16-19, 2012, Auckland, New Zealand

Online Access: Free

## Resource Link

[https://www.researchgate.net/publication/259758514\\_Analytical\\_model\\_to\\_evaluate\\_the\\_equivalent\\_viscous\\_damping\\_of\\_timber\\_structures\\_with\\_dowel-type\\_fastener\\_connections](https://www.researchgate.net/publication/259758514_Analytical_model_to_evaluate_the_equivalent_viscous_damping_of_timber_structures_with_dowel-type_fastener_connections)

**Axial beanspruchte Gewindestangen in Brettsperrholz**  
Axially loaded threaded rods in cross-laminated timber  
Goujons à sollicitation axiale employés en association avec des panneaux en lamellé-croisé

## Axially Loaded Threaded Rods in Cross-Laminated Timber

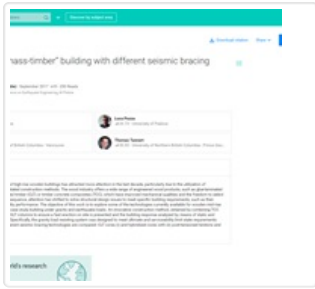
<https://research.thinkwood.com/en/permalink/catalogue1135>

Author: Enders-Comberg, Markus  
Year of Publication: 2012  
Country of Publication: Germany  
Format: Conference Paper  
Material: CLT (Cross-Laminated Timber)  
Application: Frames  
Topic: Connections  
Keywords: Rods  
Pull-Out Tests  
Language: German  
Conference: Internationales Holzbau-Forum  
Research Status: Complete  
Notes: December 6-7, 2012, Garmisch-Partenkirchen, Germany  
Online Access: Free

### Resource Link

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[http://www.forum-holzbau.ch/pdf/ihf12\\_enders-comberg.pdf](http://www.forum-holzbau.ch/pdf/ihf12_enders-comberg.pdf) 



## Design of a "Mass-Timber" Building with Different Seismic Bracing Technologies

<https://research.thinkwood.com/en/permalink/catalogue1900>

Author: Fini, Giulio  
Pozza, Luca  
Loss, Cristiano  
Tannert, Thomas

Publisher: ANIDIS Earthquake Engineering in Italy

Year of Publication: 2017

Country of Publication: Italy

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)  
Glulam (Glue-Laminated Timber)

Application: Wood Building Systems  
Frames

Topic: Seismic

Keywords: Timber Frames  
Prefabrication  
Seismic Performance

Language: English

Conference: 17th ANIDIS Conference

Research Status: Complete

Notes: September 17-21, 2017, Pistoia, Italy

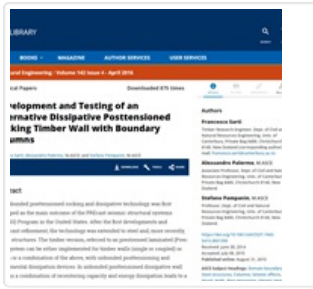
ISBN: 978-886741-8541

ISSN: 2532-120X

Online Access: Free

### Resource Link

[https://www.researchgate.net/publication/320099667\\_Design\\_of\\_a\\_mass-timber\\_building\\_with\\_different\\_seismic\\_bracing\\_technologies](https://www.researchgate.net/publication/320099667_Design_of_a_mass-timber_building_with_different_seismic_bracing_technologies)



# Development and Testing of an Alternative Dissipative Posttensioned Rocking Timber Wall with Boundary Columns

<https://research.thinkwood.com/en/permalink/catalogue1884>

Author: Sarti, Francesco  
Palermo, Alessandro  
Pampanin, Stefano

Publisher: American Society of Civil Engineers

Year of Publication: 2016

Country of Publication: United States

Format: Journal Article

Application: Frames  
Walls

Topic: Seismic  
Design and Systems

Keywords: Pres-Lam  
Prestress  
Post-Tensioning  
Displacement  
Seismic Performance  
Column-Wall-Column

Language: English

Research Status: Complete

Series: Journal of Structural Engineering

Online Access: Free

## Resource Link

[https://ir.canterbury.ac.nz/bitstream/handle/10092/13152/12655408\\_2015%20ASCE%20JSTENG%20-%20SARTI%20ET%20AL%20Development%20and%20testing%20of%20an%20alternative%20dissipative%20post-tensioned%20rocking%20timber%20wall%20with%20boundary%20columns\\_Final\\_edited.pdf?sequence=1](https://ir.canterbury.ac.nz/bitstream/handle/10092/13152/12655408_2015%20ASCE%20JSTENG%20-%20SARTI%20ET%20AL%20Development%20and%20testing%20of%20an%20alternative%20dissipative%20post-tensioned%20rocking%20timber%20wall%20with%20boundary%20columns_Final_edited.pdf?sequence=1)



## Development of a Heavy Timber Moment-Resisting Frame with Ductile Steel Links

<https://research.thinkwood.com/en/permalink/catalogue1657>

Author: Gohlich, Ryan  
Erochko, Jeffrey

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: Solid-sawn Heavy Timber

Application: Frames

Topic: Connections  
Mechanical Properties  
Seismic

Keywords: Mid-Rise  
Self-Tapping Screws  
Moment-Resisting  
Strength  
Stiffness  
Ductility

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria  
p. 3571-3580

### Summary:

To improve the seismic performance of mid-rise heavy timber moment-resisting frames, a hybrid timber-steel moment-resisting connection was developed that incorporates specially detailed replaceable steel yielding link elements fastened to timber beams and columns using self-tapping screws (STS). Performance of the connection was...

Online Access: Free

### Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1649348> 



## Development of Assembling Large Cross-Section Timber Joint System by High Ductility Wood Frame Structure

<https://research.thinkwood.com/en/permalink/catalogue1565>

Author: Matsumoto, Shinya  
Okamoto, Hajime  
Takemoto, Mitsuhiro  
Sato, Masanori

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: LVL (Laminated Veneer Lumber)

Application: Frames

Topic: Connections  
Seismic

Keywords: Joints  
Fiber Reinforced Plastics  
Ductility

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria  
p. 1580-1587

### Summary:

We propose the high productivity timber joint system based on combining the medium-sized wood lumber as assembly large cross-section member. In general, the wood frame structures are required high ductility performance. In this study, the surfaces of the member joints are covered with fiber reinforced plastics (FRP) to...

Online Access: Free

### Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1607711>



## Direct Displacement-Based Seismic Design of Timber Structures with Dowel-Type Fastener Connections

<https://research.thinkwood.com/en/permalink/catalogue1899>

Author: Loss, Cristiano  
Piazza, Maurizio  
Zonta, Daniele

Publisher: Sociedade Portuguesa de Engenharia Sismica (SPES)

Year of Publication: 2012

Country of Publication: Portugal

Format: Conference Paper

Material: Timber (unspecified)

Application: Frames  
Walls  
Wood Building Systems

Topic: Seismic  
Connections

Keywords: Direct Displacement-Based Design  
Equivalent Viscous Damping  
Dowel Type Fastener

Language: English

Conference: 15WCEE

Research Status: Complete

Notes: September 24-28, 2012, Lisbon, Portugal

ISBN: 978-1-63439-651-6

Online Access: Free

### Resource Link

[https://www.iitk.ac.in/nicee/wcee/article/WCEE2012\\_4895.pdf](https://www.iitk.ac.in/nicee/wcee/article/WCEE2012_4895.pdf)





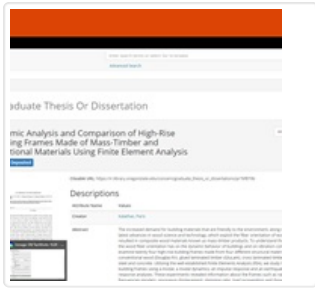
## Displacement-Based Seismic Design of Timber Structures

<https://research.thinkwood.com/en/permalink/catalogue1891>

Author: Loss, Cristiano  
Publisher: University of Trento  
Year of Publication: 2011  
Country of Publication: Italy  
Format: Thesis  
Material: CLT (Cross-Laminated Timber)  
Glulam (Glue-Laminated Timber)  
LVL (Laminated Veneer Lumber)  
Other Materials  
Application: Wood Building Systems  
Walls  
Floors  
Beams  
Columns  
Frames  
Topic: Design and Systems  
Seismic  
Keywords: Direct Displacement-Based Design  
Direct-DBD  
Full-Scale  
Single Family Houses  
Multi-Storey  
Connections  
Language: English  
Research Status: Complete  
Notes: Doctoral Thesis (PhD)  
Online Access: Free

### Resource Link

<http://eprints-phd.biblio.unitn.it/593/>



## Dynamic Analysis and Comparison of High-Rise Building Frames Made of Mass-Timber and Traditional Materials Using Finite Element Analysis

<https://research.thinkwood.com/en/permalink/catalogue2284>

Author: Kalathas, Paris  
Publisher: Oregon State University  
Year of Publication: 2019  
Country of Publication: United States  
Format: Thesis  
Material: CLT (Cross-Laminated Timber)  
Glulam (Glue-Laminated Timber)  
Light Frame (Lumber+Panels)  
Application: Frames  
Topic: Seismic  
Keywords: Finite Element Analysis  
Steel  
Concrete  
Vibration  
Damping  
Language: English  
Research Status: Complete  
Online Access: Free

### Resource Link

[https://ir.library.oregonstate.edu/concern/graduate\\_thesis\\_or\\_dissertations/pr76f870b](https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/pr76f870b)