NEW MEMBER

Faculty of Engineering, University of the Republic

Multidisciplinary Timber Research Group

COUNTRY: Uruguay

REPRESENTATIVES: Dr. Daniel Godoy dgodoy@fing.edu.uy; PhD Laura Moya moya@ort.edu.uy; ChE. Silvia Böthig sbothig@latitud.org.uy; MSc. Gastón Bruzzone gbruzzone@fagro.edu.uy

The Multidisciplinary Timber Research Group (eMME) arises from growing interest in timber as a sustainable construction material and from the current availability of domestic woods. The group comprises scientists from the Faculty of Engineering and Faculty of Agronomy of the University of the Republic, Universidad ORT Uruguay, and Latitud Fundación LATU. eMME aims to support the use of structural timber through three main pillars: research, education, and extension.

Research focus & expertise:

- structural characterization of wooden species
- development of novel EWPs and timber prototypes (buildings and bridges)
- wood drying, preservation and durability
- fire performance of structural timber and assemblies

International partnership goals

The group seeks institutions and industry partners at the international level to collaborate in the development of more sustainable and efficient construction. Collaboration through students and professors' internships in postgraduate courses, scientific visits, etc, could be a starting point.

Selected publications (last 5 years)

1. Bruzzone, G., Passarella, D., Godoy, D., Arrejuría, S., and Moya, L. 2026. Load-carrying capacity of timber-to-timber connections with wooden dowels: Experimental, theoretical and probabilistic evaluation. *Structures* 87- 111534. Elsevier. https://www.sciencedirect.com/journal/structures DOI: 10.1016/j.istruc.2026.111534
2. Bruzzone, G., Godoy, D., Arrejuría, S., Quagliotti, S., Böthig, S., and Moya, L. 2025.Estudio comparativo de productos de madera laminada unidos con distintos tipos de clavijas. *Maderas, Ciencia y Tecnología* 27. https://revistas.ubiobio.cl/index.php/MCT. DOI: 10.22320/s0718221x/2025.22
3. Baño, V., Godoy, D., Pérez Gomar, C., and Moya, L. 2024. Structural yield of fast-growing hardwood vs. softwood glulam beams. *Forests* 16 (1), 8. https://www.mdpi.com/journal/forests. DOI: 10.3390/f16010008
4. Bruzzone, G., Godoy, D., Quagliotti, S., Arrejuría, S., Böthig, S., and Moya, L. 2023. Experimental investigation on dowel laminated timber made of Uruguayan fast-grown species. *Forests* 14 (11), 2215. https://www.mdpi.com/journal/forests. DOI: 10.3390/f14112215
5. Araya, R., Guillaumet, A., Do Valle, A., Duque, M.P., González, G., Cabrero, J.M., De León, E., Castro, F., Gutiérrez, C., Negrão, J., Moya, L. and P. Guindos. 2022. Development of Sustainable Timber Construction in Ibero-America: State of the Art in the Region and Identification of Current International Gaps in the Construction Industry. *Sustainability* 14, 1170. https://www.mdpi.com/journal/sustainability/special_issues/built_environment_sus DOI: 10.3390/su14031170
6. Abejón, R. and L. Moya. 2021. Cross Laminated Timber: Perspectives from a bibliometric analysis (2006-2018). *Wood Material Science & Engineering.* https://www.tandfonline.com/doi/full/10.1080/17480272.2021.1955295. DOI: 10.1080/17480272.2021.1955295
7. Vega, A., Baño, V., Cardoso, A. and L. Moya. 2020. Experimental and numerical evaluation of the structural performance of Uruguayan Eucalyptus grandis finger-joint. *Eur. J. Wood Prod*. 78, 923–932 (2020). DOI: 10.1007/s00107-020-01570-5

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