

CURRICULUM VITAE



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CURRENT WORKING POSITION

Full professor
University of Trento
Faculty of Engineering – Department of Mechanical and Structural Engineering
Via Mesiano 77, 38123 Trento (Italy)

EDUCATION AND TRAINING

1978, degree in Civil Engineering, University of Padova, cum laude

WORK EXPERIENCE

Academic positions

1978 - 1983: teaching and research activity in Structural Analysis and Design at the Faculty of Engineering of the University of Padova; professional activity for industry, as consultant engineer (steel, timber and concrete structures);
1983 - 1992: Assistant Professor (Researcher regular position), at the Faculty of Engineering of the University of Padova;
1992 - 2004: Associate Professor, Faculty of Engineering, University of Trento;
Since 2005: Full Professor position, Faculty of Engineering, University of Trento;
Since 2006: Associate Dean of the Course of Civil Engineering, Faculty of Engineering, University of Trento.

Research activities

- 1) steel structures for civil buildings and connections (welded or bolted) for steel structures;
- 2) connections in metallic tubular structures;
- 3) earthquake resistant steel structures;
- 4) composite steel-concrete structures;
- 5) steel grade for reinforced concrete bars and structural safety;
- 6) existing timber structures: mechanical characterisation;
- 7) rehabilitation procedures for existing timber structures;
- 8) static and seismic behaviour of traditional timber structures;
- 9) traditional connections in timber structures;
- 10) innovative connection systems in glued laminated timber;
- 11) fire resistance of structures and of timber structures.

Member of different Research Projects of national interest funded by the Italian Ministry of University: "Timber structures: behaviour of the connections" (years 1990-1993); "Problems concerning the analysis and preservation of historic buildings " (years 1994 to 1996); "The project of the preservation: guidelines for the preliminary analyses, the intervention, the control of the efficiency" (years 1999 to 2001); as national responsible "Diagnosis techniques and totally removable low invasive

strengthening methods for the structural rehabilitation and the seismic improvement of historical timber structures" (years 2007-2008).

Prof. Maurizio Piazza is member of the Working Group 20 "Wood and wood materials", within the Commission "Beni culturali - NORMAL" of UNI. He is member of UNI-CIS commission for timber structures; he is active member, currently, of the RILEM Technical Committee AST on the Assessment of Timber Structures. He is also member of the Commission CNR (Research National Council) charged to set up the instructions for the use of Fiber Reinforced Plastic Materials for civil constructions (DT 201:2005), in view of future relevant national standards, and the instructions for the design of timber structures (DT 206:2007). From 1989 to 1993, member of the RILEM Technical Committee on Timber Structures TC.112 "Creep in timber structures" (report edited by P. Morlier). He was members of different COST Actions.

PUBLICATIONS (recent, only books and journals)

Books

Berti S., Piazza M., Zanuttini R., *Strutture di legno per un'edilizia sostenibile*, ISBN 88-324-4752-5, Ed. Il Sole 24 ore, 2002.

M. Piazza, R. Tomasi, R. Modena, *Strutture in legno. Materiale, calcolo e progetto secondo le nuove normative europee* (Timber structures. Material, calculation and design following the new European Codes), ISBN 88-203-3583-2, Biblioteca Tecnica Hoepli, 2005.

Piazza M., del Senno M., Bernasconi A., *Il legno e il fuoco. Nozioni di base e introduzione al calcolo*, Prontuario n. 7, Promo_legno, ISBN 978-3-902320-41-4, Milano, 2007.

Piazza M. (ed.), *Consolidamento delle strutture in legno. Risultati degli studi condotti nell'ambito della ricerca PRIN 2006 sul recupero delle strutture lignee esistenti*, ISBN 978-88-86977-64-7, Hevelius Edizioni s.r.l., Benevento, 2009.

Parts of Books

M. Piazza, P. Lavischi, *Les projets de construction bois marquants en Italie*, volume "JCBE 2002 - Créer dans le créé", Journées de la Construction Bois Epinal, Imprimerie Masson, Nancy, Juillet 2002: pp. 119-129.

M. Piazza, P. Lavischi, *Restauration et renforcement des structures anciennes*, volume "JCBE 2002 - Créer dans le créé", Journées de la Construction Bois Epinal, Imprimerie Masson, Nancy, Juillet 2002: pp.19-35.

M. Piazza, G. Brentari, *Criteri generali per la progettazione degli interventi di restauro di strutture lignee*, volume "Il manuale del legno strutturale, vol. IV: Interventi sulle strutture", Ed. Mancosu, ISBN 88-87017-41-7, 2004: pp. 28 – 51.

M. Piazza, *Interventi di consolidamento con l'uso di elementi meccanici di collegamento: solai misti legno - legno*, volume "Il manuale del legno strutturale, vol. IV: Interventi sulle strutture", Ed. Mancosu, ISBN 88-87017-41-7, 2004: pp. 108 – 127.

M. Piazza, P. Lavischi, *Load bearing timber structures in buildings: criteria for the preliminary evaluation, the design and the execution of works*, volume "Interactions between Science, Technology and Architecture in Timber Construction ", Elsevier, Paris, ISBN 2-84299-605-4, 2004: pp. 301-318.

M. Piazza, M. Ballerini, *Strutture composte legno – calcestruzzo con connettori di calcestruzzo. Indagine sperimentale*, volume "Strutture composte. Nuove costruzioni, recupero, ponti", ed. Dezi L., Gattesco N., International Centre for Mechanical Sciences CISM, Udine, ISBN 88-85137-20-2, 2006: pp. 323-340.

Piazza M., *Introduzione alle tipologie di connessione e classificazione*, Ch. 3, in "Bioarchitettura e costruzioni in legno", ISBN 88-86729-59-6, Monfalcone: Edicom Edizioni, 2006, pp. 303-316

Tomasi R., Pezzo M. I., Piazza M., *Rehabilitation of an historical theatre in Italy*, Annali Museo Civico Rovereto, ISSN 1720-9161, vol. 23 (2007), 2008. pp. 89-102

Riggio M.P., Piazza M., *Analisi in situ di elementi lignei in strutture storiche: metodologie, normative e applicazioni di tecniche non distruttive*, "Consolidamento delle strutture in legno (Rehabilitation of timber structures)", Piazza M. (ed.), ISBN 978-88-86977-64-7, 2009, HEVELIUS Edizioni srl, Benevento, pp. 9-24

Journals articles

- M. Piazza, M. A. Parisi, *Mechanics of plain and retrofitted traditional timber connections*, 'Journal of Structural Engineering', ASCE, 126 (12), 2000: pp.1395-1403.
- M. Piazza, R. Cavalli, N. Redigolo, T. Urso, *Analisi funzionale dell'impiego di resine epossidiche nei collegamenti di strutture di legno lamellare*, 'Monti e Boschi', Year LII, n. 2, 2001: pp.17-23.
- M.A. Parisi, M. Piazza, *Traditional timber joints in seismic areas: cyclic behaviour, numerical modelling, normative requirements*, European Earthquake Engineering, N. 1, 2002: pp. 40-49.
- M.A. Parisi, M. Piazza, *Seismic Behavior and Retrofitting of Joints in Traditional Timber Roof Structures*, Soil Dynamics and Earthquake Engineering, 22, 2002, 9-12: pp. 1183-1191.
- M. Piazza, F. Detassis, *Il nuovo palazzo dello sport di Trento*, 'Costruzioni Metalliche', 2004, n. 1: pp. 27-37.
- M. Del Senno, M. Piazza, R. Tomasi, *Axial glued-in steel timber joints - experimental and numerical analysis*, 'Holz als Roh- und Werkstoff', volume 62, 2004, n. 2: pp. 137-146.
- Tomasi R., Piazza M., del Senno M., *Progettazione strutturale con latifoglie americane. I risultati di una nuova ricerca*, 'L'Edilizia', n. 144, 2006: pp. 14-18.
- Piazza M., Riggio M.P., *Typological and structural authenticity in reconstruction: the timber roofs of the "Pieve" in Cavalese*, 'International Journal of Architectural Heritage', 1:1, 2007, pp. 60 – 81
- M.A. Parisi, M. Piazza, *Restoration and strengthening of timber structures: principles, criteria and examples*, ASCE 'Practice Periodical on Structural Design and Construction', 2007, 12(4), pp. 177 - 185
- Branco J.M., Cruz P.J., Piazza M., *Experimental analysis of laterally loaded nailed timber-to-concrete connections*, Construction and Building Materials, 2009, 23(1): pp. 400-410
- Piazza M., Riggio MP, *Visual strength grading and NDT of timber in traditional structures*, Journal of Building Appraisal, Vol. 3, n. 4, 2008: pp. 267-296
- Tomasi R., Zandonini R., Piazza M., Andreolli M., *Ductile End Connections for Glulam Beams*, Structural Engineering International SEI, IABSE, n. 18(3), 2008: pp. 290-296
- Tomasi R., Parisi M. A., Piazza M., *Ductile design of glued-laminated timber beams*, ASCE 'Practice Periodical on Structural Design and Construction', 2009, 14(3), pp. 113 - 122
- Piazza M., Tomasi R., Crosatti A., *Theoretical and experimental analysis of timber-to-timber joints connected with inclined screws*, Construction and Building Materials 24 (2010), pp. 1560–1571
- Piazza M., Riggio M., Tomasi R., Giongo I., *Comparison of In Situ and Laboratory Testing for the Characterization of Old Timber Beams before and after Intervention*, Periodical of Advanced Materials Research, Vols. 133-134 (2010), Trans Tech Publications, CH, pp 1101-1106 (doi:10.4028/www.scientific.net/AMR.133-134.1101)
- Parisi M. A., Riggio M., Tardini C., Piazza M., *Rehabilitation of Timber Structures and Seismic Vulnerability: a Case Study*, , Periodical of Advanced Materials Research, Vols. 133-134 (2010), Trans Tech Publications, CH, pp pp 741-746 (doi:10.4028/www.scientific.net/AMR.133-134.741)
- Zonta D., Loss C., Piazza M., Zanon P., *Direct Displacement Based Design of glulam timber frame buildings*, Journal of Earthquake Engineering, Taylor & Francis, 2010

Patents

- European Patent on a Special Device for the execution of on site hardness test on load bearing timber elements (VR2000A000052 it, 01112073.0 eu).
- European Patent on a Method of Manufacturing a Reinforced Wooden Beam and Reinforced Beam thus obtained (VR2001A0000034 it, 02005324.5 eu).

