Curriculum Vitae

Gabriele Milani

Personal data:

Current Position:

- **From 2019-November to present**
  Full Professor
  Structural Mechanics/Strength of Materials- Scienza delle Costruzioni (Sector 08/B2, ICAR/08)
  Department of Architecture, Built environment and Construction engineering (A.B.C.)
  Technical University in Milan (Politecnico di Milano)
  Piazza Leonardo da Vinci 32, 20133 Milan

Academic career:

- Form 2014-16th October to 2019-19th November: Associate Professor, sector 08/B2, scientific area ICAR/08 (Scienza delle Costruzioni), Technical University of Milan, Milan, Italy.
- July 2017 & November 2018. Qualification as full professor (**TWICE**), sector 08/B3 Tecnica delle Costruzioni/Design of steel-RC structures.
- March 2017. Qualification as full professor, sector 08/B2 Scienza delle Costruzioni/Structural mechanics.
- January 2014. Qualification as associate professor, sector 08/B2 Scienza delle Costruzioni with 5 positive scores from all the members of the board.
- December 2013. Qualification as associate professor, sector 08/B3 Tecnica delle Costruzioni with 5 positive scores from all the members of the board.
- From 2011-22th December to 2014-15th October: Tenured assistant professor, sector 08/B2, scientific area ICAR/08 (Scienza delle Costruzioni).
- From 22 December 2008 to 22 December 2011: Tenure track assistant professor, sector 08/B2, scientific area ICAR/08 (Scienza delle Costruzioni) , Technical University of Milan, Milan, Italy.
- April 2008-November 2008. Post doctoral researcher, Institute of Structural Engineering (IBK), Chair of Earthquake Engineering and Structural Dynamics, Swiss Federal Institute of Technology Zürich (ETHZ), Wolfgang-Pauli-Strasse 15 CH-8093 Zurich, Switzerland.
- December 2004- April 2008. Post doctoral researcher, Department of Engineering, University of Ferrara.

Education:

- March 2005. PhD degree. Dr Gabriele Milani obtained his PhD degree (Summa cum laude) discussing a thesis entitled “Homogenization strategies for in- and out-of-plane loaded masonry wall”. PhD in Civil and Industrial Engineering, University of Ferrara, Italy.
- December 2001. MSc degree. Dr Gabriele Milani obtained his MSc degree (Summa cum laude) discussing a thesis in the field of masonry modelling entitled “Numerical models for

the analysis of masonry walls out-of-plane loaded". MSc in Civil Engineering, University of Ferrara, Italy.

- July 1996. High school degree. Liceo Scientifico A. Roiti Ferrara, score 60/60.

Scientific interests, keywords:

Specialist: Structural analysis, masonry, earthquake engineering, FEM, limit analysis, historical constructions, elastomeric seismic isolators, FRP-FRCM reinforcement, genetic algorithms (GA), homogenisation theory, rubber vulcanization.
Generalist: theoretical and applied computational mechanics, theory and design of structures, constitutive laws, associated and non associated plasticity, chemical reaction kinetic.

Scientific activity:

Dr. Gabriele Milani scientific interests are wide and fully documented by the many international journal papers published so far (including some papers awarded for their scientific quality).

The background of his scientific activity is focused on –but not limited to- the mechanics of materials and structures. In particular, the main subjects of his activity are the following:

[T1] Collapse analyses of entire masonry buildings or masonry walls subjected to horizontal actions (earthquakes), in-plane loads and out-of-plane loads. The analyses are performed making use of ad hoc developed techniques and based on the combined utilization of homogenization and limit analysis concepts (plane stress models, 2D models with interfaces, Kirchhoff-Love and Reissner-Mindlin plates, full 3D approaches, curved Finite Elements for vaults and domes, multi-layer models, etc.). Heterogeneous approaches are also adopted for the analysis of single, multi-wythes and multi-leaf masonry walls.

[T2] Development and application of novel micro-mechanical models based on equilibrium and admissibility (lower bound approaches) or on compatible fields of velocities (upper bound approaches) for the determination of masonry strength domains. Both the cases of in- and out-of-plane loads are investigated, with different masonry textures.

[T3] Development of FE codes for the non-linear analysis of masonry walls in- and out-of-plane loaded and curved structures. The approach proposed bases on homogenization and mathematical programming (the non-linear behaviour of masonry is approximated by means of linear piecewise constant functions which allow the application of Sequential Quadratic Programming schemes accounting for the softening behaviour).

[T4] Development and study of new numerical techniques based on homogenization for the analysis of FRP (Fibre Reinforced Polymers) reinforced masonry structures in- and out-of-plane loaded (elastic, limit analysis and non-linear range).

[T5] Development of FE numerical codes for the upper and lower bound limit analysis (homogenized and heterogeneous) of masonry walls in- and out-of-plane loaded (with combined dissipation at the interfaces between contiguous elements and inside each element [triangular] or only at the interfaces between adjoining elements [triangles, tetrahedrons, wedges, 6-nodes curved triangular elements]).

[T6] Development of new non standard genetic algorithms (GA) with elitist zooming strategy for the analysis of ternary mixtures of polymers partially miscible.

[T7] Implementation of models for the analysis at collapse of entire buildings either with mechanical properties of the constituent materials assumed as random variables (Monte Carlo simulations) or for textures obtained with random variable dimensions of the blocks, e.g. quasi-periodic masonry (evaluation of the average homogenized strength domains through large scale Monte Carlo simulations).

[T8] Equivalent frame models with a multi-step approach for the analysis of masonry structures in-plane loaded. Both the cases of regular and irregular textures have been investigated.

[T9] Numerical and theoretical models for the vulcanization of EPM-EPDM rubber cured with both sulphur and peroxides. Two original theoretical models based on a single second order differential equation have been proposed to predict the reticulation level of rubber at increasing time and variable curing temperature. Several applications of technical interest, including insulated electric cables and weather strips have been analyzed.
[T10] Models for the elasto-plastic analysis of elastomeric seismic isolators.
[T11] Models for the analysis of masonry walls subjected to impacts and explosions.
[T12] Development of Sequential Linear Programming limit analysis finite elements for the analysis at collapse of in-plane loaded structures with enhanced mesh adaptation schemes.
[T13] Vulnerability analysis of masonry churches and towers. Both full 3D limit analysis and non-linear dynamic analysis with rigid elements and non linear interfaces have been successfully applied.
[T14] Numerical analysis of FRCM (Fabric Reinforced Cementitious Matrix) systems for masonry strengthening.

Scientific collaborations:

- 01/2002-Present. Scientific collaboration with Prof. Antonella Cecchi (IUAV University). The cooperation is focused on topics [T1]-[T3][T5].
- 11/2003-Present. Scientific collaboration with Prof. Paulo B. Lourenço (University of Minho, Portugal). During this period he visited University of Minho, Department of Civil Engineering (Campus de Azurem, Guimaraes, Portugal) four times (2003, 2005, 2010, 2012). The cooperation is focused on topics [T1]-[T5][T7][T11][T12].
- 01/2005-Present. Scientific collaboration with Prof. Renato S. Olivito (University of Calabria). The scientific activity was focused on topic [T3].
- 09/2005-Present. Scientific collaboration with Dr. Ernesto Grande (University of Cassino) and Dr. Tommaso Rotunno (University of Florence). The research had as objective topic [T4].
- 09/2005-Present. Scientific collaboration with Prof. Elio Sacco on topics [T1] [T4].
- 04/2008-04/2009. Collaboration with Prof. Alessandro Dazio (ETHZ Zurich CH) and Prof. Katrin Beyer (EPFL Lausanne CH) on topic [T8].
- From 02/2009-Present. Collaboration with Prof. Adolfo Santini, Prof. Giuseppe Failla, Dr. Alfredo Cundari (Università Mediterranea di Reggio Calabria) on topic [T8].
- 01/2002-Present. Collaboration with Prof. Antonio Tralli (University of Ferrara) on topics [T1]-[T5][T11][T12].
- 01/2002-Present. Collaboration with Prof. Claudio Alessandri and Dr. Vincenzo Mallardo (University of Ferrara) on topics [T1][T3][T13].
- 03/2013-Present. Collaboration with Prof. Sergio Lagomarsino (University of Genoa) on topic [T3].
- 11/2011-Present. Collaboration with Prof. Amir Hoshang Akhaveissy. Civil Engineering Department, Razi University. Kermanshah, Iran on topic [T8]
- He actively collaborates or collaborated with several colleagues of the Technical University in Milan (in alphabetic order):
    - Dr Maurizio Acito on topic [T13]
    - Prof. Massimiliano Bocciarelli on topic [T13]
    - Prof. Matteo Bruggi on topic [T4]
    - Prof. Siro Casolo on topics [T3] [T13]
    - Prof. Claudio Chesi on topic [T13]
    - Prof. Roberto Fedele on topic [T4]
    - Prof. Carlo Poggi on topic [T14]
    - Prof. Alberto Taliercio on topic [T4]

- Prof. Marco Valente on topic [T13]

Experiences in research centres abroad:

- November 2002: Dresden University of Technology, Faculty of Architecture, Chair for Planning of Load Bearing Structures, Germany, Prof. W.Jaeger. During his visit he held a seminary entitled "Homogenization techniques and FE models".
- Autumn 2003, Spring 2005, Spring 2010, Summer 2012: University of Minho, Department of Structural Engineering, Guimaraes, Portugal. Prof. P.B.Lourenço.
- October 2005: Czech Technical University in Prague, Faculty of Civil Engineering, Department of Mechanics, Prague, Czech Republic. Prof. Jiří Šejnoha.
- November 2007, February 2010, May 2010: Ecole Polytechnique Federale de Lausanne (EPFL), IMAC, Laboratoire d'informatique et de mécanique appliquées à la construction. Prof. Jan Smith, Prof. Pierino Lestuzzi.
- December 2016-March 2017: University of Newcastle (UK). Visiting Professor (Awarded with financial support by the University of Newcastle).
- November 2018: Yangzhou University (PRC). Visiting Chair Professor (Awarded with financial support by Yangzhou University and PRC Ministry for Education.

Seminaries as speaker:

- November 2002: Dresden University of Technology, Faculty of Architecture, Chair for Planning of Load Bearing Structures, Germany. "Homogenization techniques and FE models".
- October 2005: Czech Technical University in Prague, Faculty of Civil Engineering, Department of Mechanics, Prague, Czech Republic. "Homogenization techniques for in- and out-of-plane loaded masonry walls".
- November 2007: Ecole Polytechnique Federale de Lausanne (EPFL), IMAC, Laboratoire d'informatique et de mécanique appliquées à la construction, Lausanne, Switzerland. "FE limit analysis strategies for masonry buildings: historical heritage rehabilitation and seismic upgrading with carbon fibres".
- February 2008: Swiss Federal Institute of Technology in Zurich (ETHZ), IBK, Institut fur Baustatik und Konstruction, Zurich, Switzerland. "A micro-macro modeling strategy for complex 2D FE limit analysis of masonry structures".
- March 2009: Università Mediterranea di Reggio Calabria, Department of Civil Engineering, Reggio Calabria, Italy. "Multi-scale computational limit analysis strategies for the analysis of masonry structures".
- October 2010: Politecnico di Bari, Faculty of Architecture, Bari, Italy. "Statics and dynamics of masonry structures". Seminary held within Antaeus Project – Doctoral School in Civil Engineering (in cooperation with Prof. Siro Casolo).
- December 2013: Università di Genova, Genova, Italy. "Semplici modelli di omogeneizzazione per l'analisi di strutture in muratura caricate nel e fuori dal piano".
- June 2014: Czech Technical University in Prague, Faculty of Civil Engineering, Department of Mechanics, Prague, Czech Republic. "Comparison between Upper and Lower Bound Strategies to Determine Masonry Homogenized Strength Domains".
- May 2016: University of Perugia, Faculty of Civil and Environmental Engineering. "Analisi dei cinematismi locali per edifici esistenti in muratura: teoria e applicazioni a casi reali [analysis of the collapse mechanisms for existing masonry buildings: theory and applications to real cases]".
- November 2016: Università di Bologna, Bologna, Italy.
- November 2016: Università IUAV di Venezia, Italy, Faculty of Architecture. "Efficient numerical strategies for the limit analysis of masonry structures."

- December 2016: University of Newcastle (Newcastle, UK), School of Civil and Environmental Engineering. “Four limit analysis approaches to determine homogenized strength domains for masonry in-plane loaded”.
- March 2017: Northumbria University (Newcastle, UK). “Seismic vulnerability evaluation of masonry churches and towers: application of general concepts to real case-studies.”
- November 2017: Imperial College (London, UK), Faculty of Engineering, Department of Civil and Environmental Engineering. “Seismic vulnerability of masonry towers and churches: application of general concepts to real case-studies.”
- July 2018: EPFL Lausanne (Lausanne, CH), Laboratory EESD. “Vulnerability reduction of architectural heritage masonry structures: advanced numerical approaches”.
- March 2019: University of Cagliari (Cagliari, IT). “Simple 3D kinematic limit analysis procedure for a fast and reliable seismic assessment of masonry towers and churches”.
- June 2019: University of Minho (Guimaraes, PT). “3D simple interactive and adaptive CAD-UBLA procedures for the speedy evaluation of the seismic vulnerability of masonry towers (and extension to churches)”.
- November 2019: Yangzhou University (Yangzhou, PRC). “Low Cost Rubber Seismic Isolation System for Housing in Developing Countries”.

Plenary/KeyNote speaker:

1. 2018: SAHC 2018, 11th International Conference on Structural Analysis of Historical Constructions, 11-13 September 2018, Cusco Perù.

Congresses as chairman:

2. 2018: many congresses including CST2018, ICCMSE 2018, ICNAAM 2018, SAHC 2018
3. 2017: ICNAAM 2017, XV International Conference on Numerical Analysis and Applied Mathematics, 25-30 September 2017, The MET Hotel, Thessaloniki, Greece (Editor: Prof. Theodore E. Simos).
4. 2017: AIMETA 2017, XXIII Congresso - Associazione Italiana di Meccanica Teorica e Applicata Salerno, Italy, 4-7 Settembre 2017
5. 2017: Murico5, Mechanics of masonry structures strengthened with composite materials modeling, testing, design, control. Bologna, June 28th - 30th, 2017 (Editor: Prof. Di Tommaso, Gentilini, Castellazzi).
6. 2017: ICCMSE 2017, 13th International Conference of Computational Methods in Sciences and Engineering, 21-25 April 2017, The MET Hotel, Thessaloniki, Greece (Editor. Prof. Theodore Simos).
7. 2016: ICNAAM 2016, XIV International Conference on Numerical Analysis and Applied Mathematics, Rhodes, Greece, 19-25 September 2016 (Editor: Prof. Theodore E. Simos).
8. 2016: Simultech 2016, 6th International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Lisbon, Portugal, 29-31 July 2016.
9. 2016: ICCMSE 2016, 12th International Conference of Computational Methods in Sciences and Engineering, Athens, Greece, 17-20 March 2016 (Editor. Prof. Theodore Simos).
10. 2015: Simultech 2015, 5th International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Colmar, France, 21-23 July 2015.
11. 2015: ICCMSE 2015, 11th International Conference of Computational Methods in Sciences and Engineering, Athens, Greece, 20-23 March 2015 (Editor. Prof. Theodore Simos).
12. 2014: Murico4, Mechanics of masonry structures strengthened with composite materials modeling, testing, design, control. Ravenna, Italy, 9-11 September 2014 (Editor: Prof. Di Tommaso, Gentilini, Castellazzi).

13. 2014: The Twelve International Conference on Computational Structures Technology (CST2014), Naples, Italy, 2-5 September 2014 (Editor: Prof. Barry Topping).
14. 2014: Simultech 2014, 4th International Conference on Simulation and Modeling Methodologies, Technologies and Applications(SIMULTECH), Vienna, Austria, 28-30 August 2014. Friday 29 August 2014, Room Horsaal FH7 Parallel Session 3.
15. 2014: 10th International Conference on Applied and Theoretical Mechanics (MECHANICS '14), Salerno, Italy, 3-5 June 2014 (Editor: Prof. Nikos Mastorakis).
16. 2013: Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing (CC2013), Cagliari, Sardinia, Italy 3-6 September 2013 (Editor: Prof. Barry Topping).
17. 2012: The Eleventh International Conference on Computational Structures Technology (CST2012), Dubrovnik, Croatia, 4-7 September 2012 (Editor: Prof. Barry Topping).
18. 2012: Simultech 2012, 2nd International Conference on Simulation and Modeling Methodologies, Technologies and Applications(SIMULTECH), Rome, Italy, 28-31 July 2012. Saturday 28 July 2012, Room Velazquez Parallel Session 16.
19. 2011: Simultech 2011, 1st International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Noordwijkerhout, The Netherlands, July 2011. Sunday 31 July 2011, Parallel Session 7- Methodologies and Technologies Room Oxford 16.
20. 2011: XIV Convegno di Ingegneria Sismica, ANIDIS "Associazione Nazionale di Ingegneria Sismica", Politecnico di Bari, Bari, September 2011 SS01/1 & SS01/2 Special Session "Risposta sismica di edifici monumentali in muratura: analisi non-lineare dinamica e statica" (Organization by S.Casolo G.Milani and A.Tralli).

PhD schools membership and PhD final examination commission:

1. 2018: Member of the PhD final examination commission PhD EESD Laboratory (head: Prof. Katrin Beyer), EPFL Lausanne CH.
2. **2014-2018: Politecnico di Milano. Dottorato di Ricerca Department Architecture, Built Environment and Construction Engineering. Board Member.**
3. 2017: Member of the PhD final examination commission PhD school Faculty of Engineering, Department of Civil and Environmental Engineering, Imperial College, London UK.
4. 2017: Member of the PhD final examination commission PhD school Faculty of Architecture, IUAV University, Venice, IT.
5. **2012-2014: Politecnico di Bari XXVIII ciclo del Dottorato di Ricerca in Ingegneria Civile, Ambientale, del Territorio, Edile e in Chimica (DICATEC) [PhD in Civil, Environment and Chemical Engineering]. Board Member.**
6. 2012: Member of the PhD final examination commission PhD school Politecnico di Bari, sede di Taranto.

Experience as reviewer:

Reviewer for the following International Journals (within brackets the number of papers reviewed):

1. Advances in Civil Engineering (1)
2. Advances in Engineering Software (21)
3. Advances in Materials Science and Engineering (1)
4. Advances in Structural Engineering (1)
5. Applied Mathematical Modelling (1)
6. Applied Mathematics and Computations (3)
7. Applied Ocean Research (1)
8. Archive of Applied Mechanics (1)
9. Automation in Construction (4)

10. Bulletin of Earthquake Engineering (16)
11. Case Studies in Construction Materials (2)
12. Catalysts (2)
13. Chemical Engineering Journal (3)
14. Chemical Engineering Transactions CET (3)
15. Composite Structures (23)
16. Composites Part B: Engineering (25)
17. Composites Science and Technology (2)
18. Computational Mechanics (1)
19. Computer Methods in Applied Mechanics and Engineering (3)
20. Computers and Mathematics with Applications (2)
21. Computers and Structures (103)
22. Construction and Building Materials (45)
23. Earthquake Engineering and Engineering Vibration (7)
24. Earthquake Spectra (3)
25. Earthquake Engineering and Structural Dynamics (2)
26. Earthquakes and Structures, an International Journal (1)
27. Electrochemistry Communications (2)
28. Engineering Failure Analysis (19)
29. Engineering Fracture Mechanics (1)
30. Engineering Structures (70)
31. European Journal of Environmental and Civil Engineering (4)
32. European Journal of Mechanics/A Solids (3)
33. European Polymer Journal (1)
34. Frattura e Integrità Strutturale (2)
35. Industrial and Engineering Chemistry Research ACS (3)
36. Intelligent Information Management (4)
37. International Journal of Architectural Heritage (18)
38. International Journal of Chemical Kinetics (3)
39. International Journal of Chemical Reactor Engineering (1)
40. International Journal of Civil Engineering (2)
41. International Journal of Hydrogen Energy (3)
42. International Journal of Impact Engineering (2)
43. International Journal of Masonry Research and Innovation (1)
44. International Journal of Mechanical Sciences (3)
45. International Journal of Precision Engineering and Manufacturing (2)
46. International Journal of Solids and Structures (27)
47. International Scholarly Research Notices (1)
48. Iranian Polymer Journal (6)
49. ISRN Civil Engineering (2)
50. Journal of Applied Polymer Science (80)
51. Journal of Architectural Engineering ASCE (2)
52. Journal of Building Engineering (3)
53. Journal of Computational and Applied Mathematics (1)
54. Journal od Composites for Constructions ASCE (3)
55. Journal of Control Engineering and Technology IJCET (4)
56. Journal of Cultural Heritage (2)
57. Journal of Earthquake Engineering (5)
58. Journal of Engineering (2 as managing Editor)
59. Journal of Engineering Mechanics ASCE (6)
60. Journal of Environmental and Civil Engineering (2)

61. Journal of the Institution of Civil Engineers (India) Series A (1)
62. Journal of Industrial and Engineering Chemistry (3)
63. Journal of Manufacturing Processes (2)
64. Journal of Materials in Civil Engineering ASCE (15)
65. Journal of Material Cycles and Waste Management (1)
66. Journal of Mathematical Chemistry (8)
67. Journal of Performance of Constructed Facilities ASCE (3)
68. Journal of Polymers and the Environment (1)
69. Journal of Systems and Control Engineering ASME (1)
70. Journal of Sound and Vibration (1)
71. Journal of Structural Engineering ASCE (7)
72. JZUS Journal of Zhejiang University SCIENCE (3)
73. Materials (3)
74. Materials and Structures RILEM (6)
75. Materials Today: Proceedings (1)
76. Mathematical Problems in Engineering (1)
77. Meccanica (5)
78. Mechanics Research Communications (1)
79. MRS Advances (1)
80. Plastics and Rubber Journal Croatia (1)
81. Polymer Engineering and Science (6)
82. Polymer Testing (3)
83. Proceeding of ICE: Structures and Buildings (2)
84. Proceeding of ICE: Engineering and Computational Mechanics (2)
85. Roads and Bridges - Drogi i Mosty (1)
86. Rubber Chemistry and Technology (5)
87. SoftwareX (1)
88. Soil Dynamics and Earthquake Engineering (1)
89. Steel and Composite Structures, An International Journal, Techno Press (1)
90. Strain (1)
91. Structure and Infrastructure Engineering (3)
92. Structural Durability and Health Monitoring (2)
93. Structural Engineering and Mechanics (5)
94. Structures (5)
95. The Arabian Journal for Science and Engineering (1)
96. The Open Civil Engineering Journal (44)
97. The Structural Design of Tall and Special Buildings (3)
98. The Scientific World Journal (1)
99. TMS Journal (1)

Reviewer for the following books:

1. CRC Press. 2 Books on existing buildings.
2. Elsevier. 1 Book on masonry modelling.
3. Algorithmic Techniques for the Polymer Sciences, by Bradley S. Tice, PhD. Apple Academic Press.
4. IGI Global publisher. 1 Book on masonry modelling.

Reviewer for the following International Conferences:

1. Murico6: Mechanics of masonry structures strengthened with composite materials: modeling, testing, design, control. Bologna 2019, June 26-28.

2. EURODYN 2017: X International Conference on Structural Dynamics, EURODYN 2017, Rome, Italy, 10-13 September, 2017.
3. Murico5: Mechanics of masonry structures. Strengthened with composite materials modeling, testing, design, control. Bologna, June 28th - 30th, 2017.
4. IB2MAC 2016 (4): 16th Brick and Block Masonry Conference. June 26-30 2016 Padua, Italy.
5. SIMULTECH 2015 (2): 5th International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Colmar, France, 21-23 July 2015 (Editor: Mohammad S. Obaidat, Janusz Kacprzyk, Tuncer Ören).
6. SIMULTECH 2014 (8): 4th International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Wien, Austria, 28-30 August 2014 (Editor: Tuncer Ören, Janusz Kacprzyk).
7. IMC International Masonry Conference 2014 (5): 9th International Masonry Conference, Guimarães, Portugal, 07- 09 July 2014, University of Minho, ISISE, International Masonry Society (IMS).
8. Murico4: Mechanics of masonry structures. Strengthened with composite materials modeling, testing, design, control. Ravenna 2014, September 9-11
9. CC 2013: Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing (CC2013), Cagliari, Sardinia, Italy 3-6 September 2013 (Editor: Prof. Barry Topping). Evaluation commission of the "Young Researcher Best Paper Competition".
10. SIMULTECH 2013 (8): 3rd International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Reykjavik, Iceland, 28-31 July 2013 (Editor: Mohammad S. Obaidat, Slawomir Koziel).
11. CST 2012: The Eleventh International Conference on Computational Structures Technology, Dubrovnik, Croatia, 4-7 September 2012 (Editor: Prof. Barry Topping). Evaluation commission of the "Young Researcher Best Paper Competition".
12. SIMULTECH 2012 (10): 2nd International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Rome, Italy, 28-31 July 2012 (Editor: Prof. Nuno Pina, Janusz Kacprzyk)
13. SIMULTECH 2011 (5): 1st International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Noordwijkerhout, The Netherlands, July 2011.
14. ICTAS2011 (1): 2011 International Conference on Technology of Architecture and Structure, Xi'an University of Architecture and Technology, China

Evaluator for the following research proposals:

1. Partnership Programme - Joint Applied Research Projects - PCCA 2011, Romanian National Council for Research and Development.
2. Joint research projects (SCOPES) - Swiss National Science Foundation FNSNF (Switzerland). Project Evaluation year 2013.
3. Swiss National Science Foundation FNSNF. Project Evaluation year 2014.
4. Czech Science Foundation (CZ). Project Evaluation year 2014.
5. Czech Science Foundation (CZ). Project Evaluation year 2015.
6. Israeli Ministry of Science, Technology and Space (Israel). Project Evaluation year 2015.
7. Swiss National Science Foundation FNSNF (Switzerland). Project Evaluation year 2016.
8. NSERC Government of Canada (Canada). Project Evaluation year 2018.
9. Engineering for Development (E4D) Doctoral Scholarships Programme, ETH Zurich, Switzerland. Project Evaluation year 2019.

Editorial Board Memberships:

He is currently (or was) in the editorial board of the following Journals:

- **Structural Engineering and Mechanics (from 2012 Techno Press, abstracted indexed in ISI Thompson, Scopus)**
- **Computers & Structures (from 2014 Elsevier, abstracted indexed in ISI Thompson, Scopus)**
- **International Journal of Architectural Heritage (from 2019 Taylor and Francis, abstracted indexed in ISI Thompson, Scopus)**
- **Engineering Structures (from 2019 Elsevier, abstracted indexed in ISI Thompson, Scopus)**
- The Open Civil Engineering Journal (Bentham publisher, abstracted indexed in Scopus)
- Recent Patents on Mechanical Engineering (Bentham publisher) (from 2008 to 2014)
- Intelligent Information Management (Scientific Research Publishing (SRP: http://www.scirp.org)
- Journal of Control Engineering and Technology JCET (Word Academic Publishing http://www.ijcet.org/Home.aspx)
- The Scientific World Journal, Mechanical Engineering Section (http://www.tswj.com/editors/mechanical.engineering/) (from 2012 to 2014)
- Journal of Engineering, Computer Engineering Section (Hindawi publisher http://www.hindawi.com/journals/je/editors/)
- Journal of Composite Materials (http://journal.sapub.org/cmaterials)
- ISRN Civil Engineering, International Scholarly Research Network (ISRN) (http://www.isrn.com/journals/ce/)

Editor of Journals:

- From 04/2011 to 09/2013 he was **Associate Editor** of The Open Civil Engineering Journal (Bentham publisher). Abstracted-indexed in Scopus
- From 09/2013 to 08/2017 he was **Co-Editor** of The Open Civil Engineering Journal (Bentham publisher). Abstracted-indexed in Scopus
- From 08/2017 to present he is **Editor in Chief** of The Open Civil Engineering Journal (Bentham publisher). Abstracted-indexed in Scopus
- From 01/2016 **Editor in Chief and Founder** of International Journal of Masonry Research and Innovation, Inderscience Publisher. ESCI Clarivate Analytics. Scopus indexation

Invited editor of Special Issues:

- 2019: International Journal of Architectural Heritage. Structural Health Monitoring of Architectural Heritage: from the past to the future advances
- 2019: Bulletin of Earthquake Engineering. Selected papers from 10th IMC.
- 2019: Masonry International. Selected papers from 10th IMC
- 2019: International Journal of Masonry Research and Innovation. Selected papers from 10th IMC.
- 2017: Open Civil Engineering Journal. Open Challenges in Seismic Design of New Structures and Vulnerability Reduction of Existing Buildings.
- 2014: Open Civil Engineering Journal. Collection of papers from 1st FIMM: French-Italian meeting on Masonry, Marseille (FR), 24-25 October 2013.

- 2012: Open Civil Engineering Journal. New Trends in the Numerical Analysis of Masonry Structures.

Editorial Board of Conferences:

He was in the editorial board of the following International Congresses:

- IB2MAC 2020: 17th International Brick and Block Masonry Conference - 17th IB2MaC 2020. 5-8 July 2020, Krakow, Poland.
- SAHC 2020: 12th International Conference on Structural Analysis of Historical Constructions, 16-18 September 2020, Barcelona Spain (Editor: P. Roca, P.B. Lourenço, C. Modena, L. Pelà, C. Molins).
- COMPDYN 2019: 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering 24-26 June 2019, Crete, Greece (Editors: M. Papadrakakis, M. Fragiadakis).
- SIMULTECH 2019: 9th International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Prague, Czech Republic, 29-31 July 2019 (Editor: M. Obaidat, T. Ören).
- CIVIL-COMP CC2019: The Sixteenth International Conference on Civil, Structural and Environmental Engineering Computing, Riva del Garda, Italy, 16-19 September 2019 (Editors: Prof. B.H.V. Topping, J. Logo).
- MURICO6: Mechanics of Masonry Structures Strengthened with Composite Materials (MURICO6), Bologna, Italy, 26-28 June 2019 (Editor: Prof. Angelo Di Tommaso).
- SAHC 2018: 11th International Conference on Structural Analysis of Historical Constructions, 11-13 September 2018, Cusco Peru (Editor: P. Roca, P.B. Lourenço, C. Modena, R. Aguilar, D. Torrealva, S. Moreira).
- CST 2018: The Thirteenth International Conference on Computational Structures Technology. Sitges, Barcelona, Spain , 4-6 September 2018 (Editor: Prof. Barry Topping).
- GIMC XXII - GMA IX: XXII National Conference of Computational Mechanics and the IX Meeting of the AIMETA Materials Group, 13-14 September 2018, Ferrara Italy (Editor: A. Tralli).
- MURICO5: Mechanics of Masonry Structures Strengthened with Composite Materials (MURICO5), Bologna, Italy, 28-30 June 2017 (Editor: Prof. Angelo Di Tommaso, Cristina Gentilini, Giovanni Castellazzi).
- CC2015: Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing (CC2015), Prague, Czech Republic, 1-4 September 2015 (Editor: Prof. Barry Topping).
- SIMULTECH 2015: 5th International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH), Colmar, France, 21-23 July 2015 (Editor: M. Obaidat, T. Ören, J. Kacprzyk).
- CST2014: The Twelfth International Conference on Computational Structures Technology, Naples, Italy, 2-5 September 2014 (Editor: Prof. Barry Topping).
- SIMULTECH 2014: 4th International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Wien, Austria, 28-30 August 2014 (Editor: Tuncer Ören, Janusz Kacprzyk).
- SIMULTECH 2013: 3rd International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Reykjavik, Iceland, 28-31 July 2013 (Editor: Mohammad S. Obaidat, Slawomir Koziel).
- CC2013: Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing (CC2013), Cagliari, Sardinia, Italy 3-6 September 2013 (Editor: Prof. Barry Topping).

- SIMULTECH 2012: 2nd International Conference on Simulation and Modeling Methodologies, Technologies and Applications, Rome, Italy, 28-31 July 2012 (Editor: Prof. Nuno Pina, Janusz Kacprzyk).
- CST2012: The Eleventh International Conference on Computational Structures Technology, Dubrovnik, Croatia, 4-7 September 2012 (Editor: Prof. Barry Topping).
- CC2011: The Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing, Chania, Crete, Greece, 6-9 September 2011 (Editor: Prof. Barry Topping).
- CST2010: The Tenth International Conference on Computational Structures Technology, Valencia, Spain, 14-17 September 2010 (Editor: Prof. Barry Topping).
- CC2009: The Twelfth International Conference on Civil, Structural and Environmental Engineering Computing, Funchal, Madeira, Portugal, 1-4 September 2009 (Editor: Prof. Barry Topping).
- CST2008 & ECT2008: The Ninth International Conference on Computational Structures Technology and The Sixth International Conference on Engineering Computational Technology, Athens, Greece, 2-5 September 2008 (Editor: Prof. Barry Topping).

Dr. Gabriele Milani is a member of:

- American Chemical Society (ACS)
- British Masonry Council (From 2015)
- International Masonry Society (IMS)
- Chartered engineer in Italy (2002-present)

Congresses, Mini-symposia and Special Sessions Organization:

- **10th IMC 9-11 July 2018. He co-chaired the 10th International Masonry Conference (2018).**
- ICNAAM 2019: MS 62: Seismic Analysis and Retrofitting of Civil Engineering Structures (with F. Clementi, A. Formisano, M. Mosoarca)
- ICCMSE 2019: Mini-symposium 16: Design, Analysis and Retrofitting of Civil Structures and Infrastructures in Seismic Prone Areas (with F. Clementi, A. Formisano)
- AIMETA 2019: MS14 Masonry constructions: from material to structures, modelling and analysis approaches (with E. Sacco, D. Addessi, F. Marmo)
- CC 2019: SS CC6: Computational masonry modelling (with. F. Clementi, A. Formisano).
- COMPDYN 2019: MS 13: Recent numerical modelling trends for the preservation of historical masonries in seismic areas (with F. Clementi, N. Cavalagli, A. Formisano, V. Plevris).
- CST 2018: The Thirteenth International Conference on Computational Structures Technology 4-6 September 2018, Sitges, Barcelona, Spain. Special Session CST2018-11: Seismic Assessment of New Structures and Vulnerability Reduction of Existing Buildings: Advanced Numerical Modelling (with A. Formisano, F. Clementi)
- ICNAAM 2018: Mini-symposium 95: Open Challenges Towards a Seismic Protection of New and Existing Buildings (with F. Clementi, F. Fabbrocino, A. Formisano)
- ICCMSE 2018: Mini-symposium 15: Existing and New Structures in Seismic Prone Areas: Advanced Numerical Modelling and Experimentation (with. F. Clementi, A. Formisano)
- ICNAAM 2017: Mini-symposium 95. Open Challenges in Seismic Design of New Structures and Vulnerability Reduction of Existing Buildings (with A. Formisano, F. Fabbrocino)
- AIMETA 2017: Mini-symposium 05b: Mechanics of masonry structures, behaviour of shell structures (with. F. Marmo, L. Rosati)

- ICCMSE 2017: Mini-symposium 25. Numerical Modeling, Experimentation and Design Practice for Masonry Structures in Seismic Prone Areas (with A. Formisano, F. Clementi)
- ICNAAM 2016: Vulnerability Reduction of Existing Buildings and Design of New Structures in Seismic Area (with A. Formisano, F. Clementi)
- ICCMSE 2016: Mini-symposium 28. Modern Masonry Mechanical Modelling and Experimentation
- CC2015: Special Session CC2015-22. Structural Analysis of Historic Masonry Constructions: From Simplified Approaches to Advanced Numerical Simulations (with M. Sejnoha and J. Sejnoha)
- ICCMSE 2015: Mini-symposium 48. Numerical and Experimental Analysis of Masonry Structures (with G. Rosati and R. Fedele)
- AIMETA 2015: La modellazione delle murature: dalla teoria agli approcci numerici e semplificati [masonry modelling: from theory to simplified numerical approaches] (with D. Addessi and E. Sacco]
- ICCMSE 2014: Mini-symposium 161. Advances in Experiments and Modelling of Masonry Elements (with G. Rosati and R. Fedele)
- ANIDIS 2011: Special Session SS01 Risposta Sismica di Edifici Monumentali in Muratura: Analisi Non-Lineare Dinamica e Statica (with S. Casolo, G. Uva)

Awards:

- Most Cited Author Diploma, Computers & Structures, Years 2006-2010, for the paper entitled "Homogenised limit analysis of masonry walls. Part I: failure surfaces" [Computers and Structures 84(3-4), pp. 166-180]
- Telford Premium Award, by the UK Institution of Civil Engineers, for the paper entitled "FE homogenized limit analysis code for masonry buildings", published in Engineering and Computational Mechanics. Proceedings of the Institution of Civil Engineers (ICE) 164, pp. 65-78.
- Nomination by the Italian Group of Computational Mechanics (GIMC) for the ECCOMAS as the single Italian candidate for the O.C. Zienkiewicz Award 2014.
- **K.J. Bathe Award 2014.** This award is named to recognize the outstanding contributions made by Professor K.J. Bathe over many years to the field of computational engineering. This Award is made every two years.
- **Chair Professor year 2019-2020: Yangzhou University, China.**

Teaching activity:

Dr. Gabriele Milani has long experience in teaching activity in different Faculties of Architecture in Italy, both in integrated or mono-discipline courses and in laboratories of architectural design.
In particular Dr. Gabriele Milani is Professor (or was Professor) of the following courses:

- "Mechanics of structures". Year 2005/2006 (6CFU). University of Ferrara, Faculty of Civil Engineering, MSc Degree (54 Hours). In Italian.
- "Exercises of statics". Year 2005/2006, Year 2006/2007. University of Ferrara, Faculty of Architecture, MSc Degree (50 Hours). In Italian.
- "Non linear analysis of structures" (6CFU). Year 2006/2007, Year 2007/2008. University of Ferrara, Faculty of Civil Engineering, MSc Degree (54 Hours). In Italian.
- "Principles of static in architecture" (4CFU). Year 2009/2010, Year 2010/2011, Year 2011/2012. Politecnico di Milano, Faculty of Civil Architecture (II Faculty of Architecture – Bovisa). In Italian.
- "Principles of static in architecture" (4CFU). Year 2012/2013. Politecnico di Milano, Faculty of Civil Architecture (II Faculty of Architecture – Bovisa).2 In English.

- “Structural mechanics”. Year 2009/2010 (4CFU), Year 2010/2011 (4CFU), Year 2011/2012 (6CFU), Year 2012/2013 (6CFU), Year 2013/2014 (6CFU), Year 2014/2015 (6CFU). Politecnico di Milano, Faculty of Civil Architecture (II Faculty of Architecture – Bovisa). In Italian.
- “Scienza delle Costruzioni/Strength of Materials”. Year 2015/2016 (6CFU), 2016/2017 (8 CFU), 2017/2018 (8 CFU), 2018/2019 (8 CFU). Politecnico di Milano, School of Architecture (ARC I-SOC & ARC-URB-COST, Piacenza). In Italian.
- “Statics” [in English]. Year 2016/2017 (4CFU), 2017/2018 (4 CFU), 2018/2019 (4 CFU). Politecnico di Milano, School of Architecture (ARC I-SOC & ARC-URB-COST, Milan Leonardo).

Dr. Gabriele Milani collaborated on the teaching activity (assistant) for the following courses:

- University of Ferrara, Faculty of Civil Engineering, MSc Degree for the course “Strength of materials” (from 2005 to 2008).
- University IUAV of Venice, Faculty of Architecture for the following courses: “Structural mechanics I” (from 2006 to 2008) “Applications of structural mechanics” (2 modules, year 2006/2007).
- Technical University in Milan, Faculty of Civil Architecture “Bovisa” for the following course: “Solids mechanics” (2009).

MSc Degree Theses (Laurea) tutoring:

Dr. Gabriele Milani was tutor or co-tutor for the following MSc Degree Theses:

1. Enrico Milani (2004) (University of Ferrara, Faculty of Civil Engineering, Italy). Modelli agli elementi finiti per analisi al collasso di travi parete in muratura in presenza di rinforzi di C-FRP. 1° Relatore Prof. Antonio Tralli. 2° Relatore Ing. Gabriele Milani. [FE models for the analysis at collapse of C-FRP reinforced masonry walls].
2. Francesco Barigozzi (2005) (University of Ferrara, Faculty of Civil Engineering, Italy). Confronto fra diversi metodi di analisi di strutture in muratura in zona sismica: il caso I.P.S.S.A.R. “Orio Vergani” succ.le “Varano” sito in Ferrara. 1° Relatore Prof. Antonio Tralli. 2° Relatore Ing. Gabriele Milani. [Comparison among different analysis methods for masonry structures in seismic zone: the I.P.S.S.A.R. “Orio Vergani” succ.le “Varano” School (Ferrara) case].
3. Massimo Garutti (2006) (University of Ferrara, Faculty of Civil Engineering, Italy). Simulazione agli elementi finiti del comportamento dinamico di pareti in muratura. Relatore Prof. Antonio Tralli. Correlatore Ing. Gabriele Milani. A.A.2005/2006. [FE simulations of the dynamic behaviour of masonry walls].
4. Carlo Tuzza (2008) (University of Ferrara, Faculty of Civil Engineering, Italy). Analisi non lineari ad elementi finiti di strutture voltate in muratura rinforzate con strisce in FRP. 1° Relatore Prof. Antonio Tralli. 1° Relatore Ing. Gabriele Milani & Ing Enrico Milani [Non linear FE analyses of vaulted masonry structures reinforced with FRP strips].
5. Gabriela German (2010) (Politechnika Krakowska, Instytut Mechaniki Budowli, Poland). Homogenization method applied to analyze masonry structures. Tutors Prof. Adam Zaborski, Prof. Paulo Lourenço, Ing. Gabriele Milani.
6. Andrea Naliato (2011). (University of Ferrara, Faculty of Civil Engineering, Italy). Analisi non lineari ad elementi finiti di un campanile tardo medioevale in muratura nell’alto ferrarese. 1° Relatore Prof. Antonio Tralli, 1° Relatore Ing. Gabriele Milani. [Non linear FE analyses on a late medieval masonry bell tower in the Ferrara region]
7. Michela Vallè (2013). (Politecnico di Milano, School of Civil Engineering, Italy). Vulnerabilità sismica e analisi numeriche interpretative del collasso della torre dell'orologio

di Finale Emilia. Relatore: Ing. Maurizio Acito. Correlatori: Ing. Gabriele Milani, Ing. Massimiliano Bocciarelli. Controrelatore: Prof. Claudio Chesi.

8. Michele Bosco (2013). (Politecnico di Milano, School of Civil Engineering, Italy). Ricostruzione del modello e analisi sismica del mastio del castello delle rocche di Finale Emilia (MO). Relatore: Ing. Gabriele Milani. Correlatore: Ing. Maurizio Acito. Controrelatore: Prof. Claudio Chesi.
9. Luca Del Curto, Riccardo Ratti (2013). (Politecnico di Milano, School of Civil Engineering, Italy). Vulnerabilità sismica e analisi numeriche interpretative dei danneggiamenti del Castello delle Rocche di Finale Emilia (MO). Relatore: Ing. Maurizio Acito. Correlatore: Ing. Gabriele Milani. Controrelatore: Prof. Claudio Chesi.
10. Stefano Rambaudi (2013). (Politecnico di Milano, School of Civil Engineering, Italy). Analisi numeriche del comportamento strutturale di due chiese in muratura danneggiate dagli eventi sismici del Maggio 2012 in Emilia-Romagna. Relatore: Ing. Gabriele Milani. Correlatore: Ing. Stefano Zanella. Controrelatore: Ing. Marco Valente.
11. Chiara Fieni, Alessandro Mantovani (2013). (Politecnico di Milano, School of Architecture Mantua, Italy). Comportamento sismico delle chiese in muratura. Analisi di cinque chiese dopo il sisma del maggio 2012 in Emilia. Relatore: Ing. Marco Valente. Correlatore: Ing. Gabriele Milani.
12. Claudia Resnati, Ilaria Riva (2014). (Politecnico di Milano, School of Architecture I, Italy, Bachelor thesis). Analisi attraverso meccanismi di collasso di chiese in muratura danneggiate dal sisma. Relatore: Ing. Roberto Fedele. Correlatore: Ing. Gabriele Milani.
13. D. Javier Mateu Gandía (2014). Ingeniería de Caminos, Canales y Puertos. Esp. Construcciones Civiles. University of Valencia. Estudio del comportamiento sísmico de las iglesias San Sisto II, San Giacomo y San Giorgio Martire, en la región Emilia Romagna (norte de Italia). Recomendaciones de actuación y mantenimiento. Tutor: Prof. José Miguel Adam Martinez. Co-Tutor: Ing. Gabriele Milani.
14. Denise Peretti (2014). (Politecnico di Milano, School of Civil Engineering, Italy). Modelli numerici per l'analisi limite e dinamica di archi in muratura. Relatore: Prof. Gabriele Milani.
15. Simone Tiberti (2015). (Politecnico di Milano, School of Civil Engineering, Italy). Il castello delle rocche: analisi di vulnerabilità sismica ed effetti di possibili interventi di restauro materico sulla risposta strutturale. Relatore: Ing. Maurizio Acito. Correlatore: Prof. Gabriele Milani.
16. Stefano Torri (2015). (Politecnico di Milano, School of Civil Engineering, Italy). La Torre dell'Orologio e il mastio del Castello delle Rocche: analisi di vulnerabilità sismica ed effetti di possibili interventi di restauro materico sulla risposta strutturale. Relatore: Prof. Gabriele Milani. Correlatore: Ing. Maurizio Acito.
17. Nicola Grillanda (2016). (University of Ferrara, School of Civil Engineering, Italy). Nuovo approccio per l'analisi limite delle volte in muratura basato sul teorema cinematico: determinazione del cinematismo di collasso con una rappresentazione NURBS della geometria e un algoritmo di tipo genetico. Relatore: Prof. Antonio Tralli, Ing. Andrea Chiozzi, Prof. Gabriele Milani.
18. Marco Pejatovic (2018). (Politecnico di Milano, School of Civil Engineering, Italy). Seismic vulnerability assessment of four masonry towers located in Northern Italy and comparison with the results on non-smooth contact dynamics analysis. Supervisor: Prof. Gabriele Milani
19. Mirko Pejatovic (2018). (Politecnico di Milano, School of Civil Engineering, Italy). Vulnerability assessment of Nepalese temples. Supervisor: Prof. Gabriele Milani
20. Francesca Faleri (2019). (Politecnico di Milano, School of Civil Engineering, Italy). Seismic vulnerability assessment of Roman concrete monuments: two case studies in imperial Rome. Supervisor: Prof. Gabriele Milani

21. Eric Farah (2019). (Politecnico di Milano, School of Civil Engineering, Italy). A parametric study on the lateral load carrying capacity of irregular masonry towers. Supervisor: Prof. Gabriele Milani
22. Paolo Marelli (2019). (Politecnico di Milano, School of Civil Engineering, Italy). Vulnerabilità sismica di aggregati edilizi compatti in muratura: un caso studio ad Arsita (TE). Supervisor: Prof. Gabriele Milani
23. Marco Quargnal (2019). (Politecnico di Milano, School of Civil Engineering, Italy). Comportamento sismico di chiese in tufo a Napoli: analisi numeriche avanzate. Supervisor: Prof. Gabriele Milani
24. Natalia Pingaro (2019). (Politecnico di Milani, School of Architecture Piacenza Campus, Italy). Valutazione dei cinematismi di collasso di torri in muratura. Supervisor: Prof. Gabriele Milani

Master Degree Theses tutoring (Advanced masters in structural analysis of monuments and historical constructions):

1. Yhosimi Washington Esquivel Fernández (2012). Characterization of the response of quasi-periodic masonry: Geometrical investigation, homogenization and structural application. Tutors: Prof. Paulo B. Lourenço, Ing. Gabriele Milani.

PhD Degree Theses co-tutoring:

Dr. Gabriele Milani was tutor for the following PhD Degree Theses:

1. Enrico Milani (2010). XXII year. University of Ferrara, Doctoral School in Civil Engineering, Italy. FE homogenized limit analysis models for unreinforced and FRP reinforced masonry curved structures (Supervisors Prof. Antonio Tralli, Ing. Gabriele Milani).
2. Giuseppe Alfredo Cundari (2011). XXIII year. University Mediterranea of Reggio Calabria, Doctoral School in Materials and Structural Engineering, Italy. Numerical approaches for the safety assessment of ancient masonry buildings (Supervisors Prof. Adolfo Santini, Ing. Gabriele Milani).
3. Elisa Bertolesi (2016). XXIX year. Technical University of Milan. PhD in Architecture, Built Environment and Construction Engineering. Simple compatible homogenisation strategies. Application to unreinforced and FRCM reinforced masonry structures in and out of plane loaded (Supervisor: Prof. Gabriele Milani. Co-Supervisor: Prof. Carlo Poggi).
4. Rafael Shehu (2018). XXXI year. Methods of Analysis & Innovative Strategies for Seismic Assessment & Retrofitting of Existing Structures (Supervisor: Prof. Gabriele Milani. Co-Supervisor: Prof. Marco Valente).
5. Gabriel Stockdale (2019). XXXII year. Still running (Supervisor: Prof. Gabriele Milani).
6. Ahmad Basshofi Habieb (2019). XXXII year. Still running (Supervisor: Prof. Gabriele Milani).
7. Simone Tiberti (2019). XXXII year. Still running (Supervisor: Prof. Gabriele Milani).
8. Nicola Grillanda (2021). XXXIV year. Still running (Supervisor: Prof. Gabriele Milani).
9. Jacopo Scacco (2021). XXXIV year. Still running (Supervisor: Prof. Gabriele Milani).
10. Peixuan Wang (2022). XXXV year. To start (Supervisor: Prof. Gabriele Milani).
11. Sebastian Calderon Diaz (2021). Joint PhD title Catholic University of Chile and Technical University of Milan (Supervisors: Prof. Gabriele Milani, Prof. Cristian Sandoval Mandujano)

Publications

Journal papers (JP) ISI

1. [01.JP] Cecchi A., Milani G., Tralli A. (2004). In-plane loaded CFRP reinforced masonry walls: mechanical characteristics by homogenisation procedures. Composites Science and Technology, 64, pp.2097-2112. doi: 10.1016/j.compscitech.2004.03.009
2. [02.JP] Cecchi A., Milani G., Tralli A. (2005). Validation of analytical multiparameter homogenization models for out-of-plane loaded masonry walls by means of the finite element method. Journal of Engineering Mechanics ASCE, 131(2), pp.185-198. doi: 10.1061/(ASCE)0733-9399(2005)131:2(185)
3. [03.JP] Cecchi A., Milani G., Tralli A. (2005). Out-of-plane loaded CFRP reinforced masonry walls: mechanical characteristics by homogenization procedures. Composites Science and Technology, 65, pp. 1480-1500. doi: 10.1016/j.compscitech.2004.12.047
4. [04.JP] Milani G., Lourenco P.B., Tralli A. (2006). Homogenised limit analysis of masonry walls, Part I: failure surfaces. Computers and Structures 84(3-4), pp. 166-180. doi:10.1016/j.compstruc.2005.09.005 [Most downloaded articles TOP 25: CAS Jan-Mar 2006. Ranking: 1. Most cited Author Scopus 2005-2008. Most Cited Paper 2006-2010 CAS]
5. [05.JP] Milani G., Lourenco P.B., Tralli A. (2006). Homogenised limit analysis of masonry walls, Part II: structural examples. Computers and Structures 84(3-4), pp. 181-195. doi:10.1016/j.compstruc.2005.09.004 [6th Most Cited Paper 2006-2010 CAS]
6. [06.JP] Milani G., Lourenco P.B., Tralli A. (2006). Homogenization approach for the limit analysis of out-of-plane loaded masonry walls. Journal of Structural Engineering ASCE, 132(10), pp. 1650-1663. doi: 10.1061/(ASCE)0733-9445(2006)132:10(1650)
7. [07.JP] Cecchi A., Milani G., Tralli A. (2007). A Reissner-Mindlin limit analysis model for out-of-plane loaded running bond masonry walls. International Journal of Solids and Structures, 44(5), pp. 1438-1460. doi: 10.1016/j.ijsolstr.2006.06.033
8. [08.JP] Milani G., Zuccarello F.A., Olivito R.S., Tralli A. (2007). Heterogeneous upper-bound finite element limit analysis of masonry walls out-of-plane loaded. Computational Mechanics, 40 (6), pp. 911-931. doi: 10.1007/s00466-006-0151-9
9. [09.JP] Milani G., Milani F. (2007). Genetic Algorithm for the determination of binodal curves in ternary systems Polymer / Liquid(1) / Liquid(2) and Polymer(1) / Polymer(2) / Solvent. Journal of Computational Chemistry, 28 (13), pp. 2203-2215. doi: 10.1002/jcc.20735
10. [10.JP] Milani G., Lourenco P.B., Tralli A. (2007). 3D Homogenized limit analysis of masonry buildings under horizontal loads. Engineering Structures, 29 (11), pp. 3134-3148. doi:10.1016/j.engstruct.2007.03.003
11. [11.JP] Lourenco P.B., Milani G., Tralli A., Zucchini A. (2007). Analysis of masonry structures: review of and recent trends in homogenisation techniques. Canadian Journal of Civil Engineering, 34 (11), pp. 1443-1457. doi:10.1139/L07-097
12. [12.JP] Cecchi A., Milani G. (2008). A kinematic FE limit analysis model for thick English bond masonry walls. International Journal of Solids and Structures, 45(5), pp. 1302-1331. doi:10.1016/j.ijsolstr.2007.09.019
13. [13.JP] Milani G. (2008). 3D upper bound limit analysis of multi-leaf masonry walls, International Journal of Mechanical Sciences, 50(4), pp. 817-836. doi:10.1016/j.ijmecsci.2007.11.003
14. [14.JP] Grande E., Milani G., Sacco E. (2008). Modelling and analysis of FRP-strengthened masonry panels. Engineering Structures, 30 (7), pp. 1842-1860. doi:10.1016/j.engstruct.2007.12.007. TOP 25: ES Jan-Mar 2006. Ranking: 25. Jul- Sep 2008.

15. [15.JP] Mallardo V., Malvezzi R., Milani E., Milani G. (2008). Seismic vulnerability of historical masonry buildings: a case study in Ferrara. Engineering Structures, 30(8): pp. 2223-2241. doi: 10.1016/j.engstruct.2007.11.006
16. [16.JP] Milani E., Milani G., Tralli A. (2008). Limit analysis of masonry vaults by means of curved shell Finite Elements and homogenization. International Journal of Solids and Structures, 45(20): pp. 5258-5288. doi:10.1016/j.ijsolstr.2008.05.019
17. [17.JP] Milani G., Milani F. (2008). Genetic algorithm for the optimization of rubber insulated high voltage power cables production lines. Computers & Chemical Engineering, 32: pp. 3198-3212. doi:10.1016/j.compchemeng.2008.05.010
18. [18.JP] Milani G. (2009). Homogenized limit analysis of FRP-reinforced masonry walls out-of-plane loaded. Computational Mechanics, 43: pp. 617–639. doi: 10.1007/s00466-008-0334-7
19. [19.JP] Milani G., Lourenço P.B. (2009). A discontinuous quasi-upper bound limit analysis approach with sequential linear programming mesh adaptation. International Journal of Mechanical Sciences, 51(1): pp. 89-104. doi: 10.1016/j.ijmecsci.2008.10.010
20. [20.JP] Milani G., Milani F. (2009). Optimization of power cable production lines for EPM/EPDM elastomers by Genetic Algorithm with different peroxides. Journal of Applied Polymer Science, 111(1), pp. 482-507. doi 10.1002/app.29087
21. [21.JP] Zuccarello F.A., Milani G., Olivito R.S., Tralli A. (2009). A numerical and experimental analysis of unbonded brickwork panels laterally loaded. Construction and Building Materials, 23(5), pp. 2093-2106. doi:10.1016/j.conbuildmat.2008.08.031
22. [22.JP] Milani G., Lourenço P.B. (2009). Blast analysis of enclosure masonry walls using homogenization approaches. International Journal for Multiscale Computational Engineering, 7(2), pp. 91-113. doi: 10.1615/IntJMultCompEng.v7.i2.20
23. [23.JP] Milani G., Milani F. (2009). Numerical model for the optimal vulcanization of 2D polar rubber compounds through microwaves. Macromolecular Theory and Simulations, 18, pp. 336-354. doi: 10.1002/mats.200900017
24. [24.JP] Milani G., Lourenço P.B., Tralli A. (2009). Homogenized rigid-plastic model for masonry walls subjected to impact. International Journal of Solids and Structures, 46(22-23), pp. 4133-4149. doi:10.1016/j.ijsolstr.2009.08.007
25. [25.JP] Milani G., Beyer K., Dazio A. (2009). Upper bound limit analysis of meso-mechanical spandrel models for the pushover analysis of 2D masonry frames. Engineering Structures, 31(11), pp. 2696-2710. doi: 10.1016/j.engstruct.2009.06.015
26. [26.JP] Milani G., Milani E., Tralli A. (2009). Upper Bound limit analysis model for FRP-reinforced masonry curved structures. Part I: unreinforced masonry failure surfaces. Computers & Structures, 87 (23-24), pp. 1516–1533. doi: 10.1016/j.compstruc.2009.07.007
27. [27.JP] Milani G., Milani E., Tralli A. (2009). Upper Bound limit analysis model for FRP-reinforced masonry curved structures. Part II: structural analyses. Computers & Structures, 87 (23-24), pp. 1534–1558. doi:10.1016/j.compstruc.2009.07.010
28. [28.JP] Milani G. (2010). FE homogenized limit analysis model for masonry strengthened by near surface bed joint FRP bars. Composite Structures, 92(2), pp. 330–338. doi: 10.1016/j.compstruct.2009.08.004
29. [29.JP] Milani G., Milani F. (2010). Alternating tangent approach for the optimal vulcanization of 2D-3D EPM/EPDM thick elements. Journal of Applied Polymer Science, 115, pp. 1995-2012. DOI 10.1002/app.31239
30. [30.JP] Milani G., Milani F. (2010). Optimal vulcanization of 2D-3D EPM/EPDM thick elements through peroxidic mixtures. Journal of Mathematical Chemistry 47(1), pp. 229-267. doi: 10.1007/s10910-009-9566-9
31. [31.JP] Milani G., Milani E., Tralli A. (2010). Approximate limit analysis of full scale FRP-reinforced masonry buildings through a 3D homogenized FE package. Composite Structures, 92, pp. 918–935. doi:10.1016/j.compstruct.2009.09.037

32. [32.JP] Milani G., Benasciutti D. (2010). Homogenized limit analysis of masonry structures with random input properties: polynomial response surface approximation and Monte Carlo simulations. Structural Engineering and Mechanics, 34(4), pp. 417-447. ISSN 1225-4568
33. [33.JP] Milani G. (2010). 3D FE limit analysis model for multi-layer masonry structures reinforced with FRP strips. International Journal of Mechanical Sciences, 52, pp. 784–803. doi:10.1016/j.ijmecsci.2010.01.004
34. [34.JP] Milani G., Lourenço P.B. (2010). A simplified homogenized limit analysis model for randomly assembled blocks out-of-plane loaded. Computers & Structures, 88, pp. 690–717. doi:10.1016/j.compstruc.2010.02.009
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203. [8.BC] Reccia E., Cecchi A., Milani G., (2016). FEM/DEM Approach for the Analysis of Masonry Arch Bridges. In: Computational Modeling of Masonry Structures Using the Discrete Element Method. IGI Global Publisher (pages 367-392).
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Book as Editor/Author (BE)

205. [1.BE]. Sarhosis V., Bagi K., Lemos J.V., Milani G. (2016). Computational Modeling of Masonry Structures Using the Discrete Element Method. IGI Global Publisher. ISBN13: 9781522502319|ISBN10: 1522502319|EISBN13: 9781522502326|DOI: 10.4018/978-1-5225-0231-9
206. [2.BE]. Ghiassi B., Milani G. (2019). Numerical Modeling of Masonry and Historical Structures. Woodhead Elsevier Publisher. ISBN: 9780081024393
207. [3.BE] Sarhosis V., Vestringe E., Beyer K., Milani G. (2019). Assessment and monitoring of historic masonry structures. CRC press. In press.

Journal Editorials (JE)

208. [1.JE]. Milani G. (2016). Preface International Journal of Masonry Research and Innovation.

PhD Thesis (PhDT) & Internal reports (IR)

209. [1.PhDT] Milani G. (2004). Homogenization techniques for in- and out-of-plane loaded masonry walls. PhD Thesis, Ferrara, December 2004.

210. [1.IR] Milani G., Tralli A. (2004). A micro-mechanical model for the homogenized limit analysis of out-of-plane loaded masonry walls. Report 130 Dipartimento di Ingegneria, Universita' di Ferrara, December 2004.

Divulgation articles

211. [1.DI] Milani G., Venturini G. (2009). La prevenzione dei danni causati dai terremoti: il metodo per difendere gli edifici. Chiesa Oggi 86, pp. 71.
212. [2.DI] Milani G., Fedele R. (2013). Beneficio strutturale conseguente all'introduzione di strisce in FRP su muratura. Il Giornale dell'Ingegnere #8 2013, pp.12-15.
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Scopus indicators

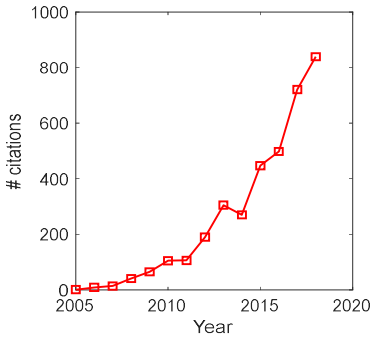
(Updated 28 September 2019)

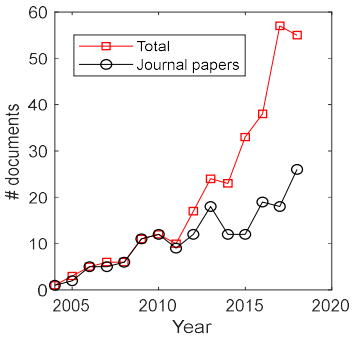
(Updated 10 December 2019)

Data in Brief

Research

- # Papers 195
- # Documents 357
- # of citations [total] 4780
- h-index 39
- First author in Scopus under the keyword “masonry”

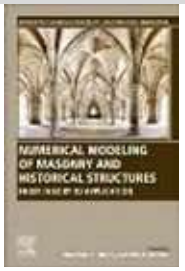


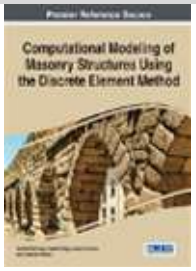


Teaching Activity

- 17 years of experience in Faculties/Schools of Architecture
  - Ferrara
  - IUAV University of Venice
  - Technical University of Milan
- Teacher in laboratories (architectural design studios), integrated courses and mono-discipline courses. High rate evaluations and good relationship with other teachers.

Editorial Activity





- Editor in Chief and Founder: International Journal of Masonry Research and Innovation
- Editor in Chief: Open Civil Engineering Journal
- Reviewer for more than 300 papers in prestigious journals (>90) of the discipline
- Author of 3 books on masonry
- Guest editor for several times in prestigious journals (e.g. Bulletin of Earthquake Engineering, International Journal of Architectural Heritage)
- Chairman: 10th International Masonry Conference 10thIMC, Milan, Italy, July 9-11 2018
- EB membership: Computers & Structures, International Journal of Architectural Heritage, Structural Engineering and Mechanics, Engineering Structures

Academic career

- Double habilitation as full professor in “Tecnica delle Costruzioni” Session 2012, Session 2016
- Habilitation as full professor in “Scienza delle Costruzioni” Session 2016
- Full Professor Technical University of Milan since 2019
    - previously assistant professor (2008-2014) and associate professor (2014-2019), Technical University of Milan
    - post doctoral researcher (2005-2008, ETHZ, University of Ferrara)

Awards

- **Most Cited Author Award** Computers & Structures, Years 2006-2010
- **Telford Premium Award**, by the UK Institution of Civil Engineers
- **K.J. Bathe Award 2014.** This award is named to recognize the outstanding contributions made by Professor K.J. Bathe over many years to the field of computational engineering.
- **Chair Professor 2019-2020**. Yangzhou University, China.

“Autorizzo il Politecnico di Milano a pubblicare il presente curriculum sul sito WEB di Ateneo, ai fini istituzionali e in ottemperanza al D. Lgs n. 33 del 14 marzo 2013 “Decreto trasparenza” come modificato dal D. Lgs. 97 del 2016”