

Curriculum

Dr. Marco DOMANESCHI

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Personal Data

Born in Pavia (Italy), on October 13, 1972

Current Affiliation

Department of Structural, Geotechnical and Building Engineering
Politecnico di Torino - Corso Duca degli Abruzzi, 24 - 10129
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Research Areas

- *Numerical Techniques.* Simulation and analysis of special structures, control and structural health monitoring systems. Time domain and frequency domain signal processing. Probabilistic safety assessment (risk analysis).
- *Safety Evaluation and Assessment.* Fragility computation via Monte Carlo simulation and FORM probability evaluation. Response Surface Methodology. Structural Optimisation. Robustness. Resilience. Fatigue.
- *Finite Element Analysis of Structures.* Seismic analysis of large concrete dams. Long-span cable-supported bridges under wind, earthquake and traffic loading. Seismic analysis of nuclear power plants. Implementation of control and monitoring systems in complex structural model.
- *Finite Element Analysis of Mechanical Components.* Composite pipes and mechanical joints. Coupled-thermo-mechanical and contact analysis. Constitutive modelling of composite materials and elastomers. Impact loading. Creasing and folding of composite paperboards.
- *Experimental Analysis.* Static and dynamic experimental techniques for characterization and analysis of components and structures.

Education and Degrees

2006	PhD in Civil Engineering from University of Pavia, Italy (highest final grade)
1999	Post-graduate specialization at the Technical University UPC of Barcelona, Spain
1998	MSc in Civil Engineering from University of Pavia, Italy
1990	High-School (“Liceo Scientifico”)

Professional Qualification

1998	Professional Engineer (PE) Qualification
1999-present	Consultant for dams, bridges and tunnelling; structural and geotechnical analysis. Official approvals of buildings. R&D consultant in industrial manufacture and mechanical engineering.

Academic Appointments

2017-23	National Academic Qualification as Associate Professor in Structural Engineering – Scientific Area 08/B3
2016-19	Assistant Professor of Structural Mechanics and Seismic Engineering, Politecnico di Torino, Turin, Italy
2016-17	Contract Professor of Structural Design , School of Architecture, Politecnico di Milano, Milan, Italy (60 students class – 4CFU) – abandoned from January 2017 for a new appointment in Turin.
2016-17	Contract Professor of Design of Complex Structures II , School of Architecture, Politecnico di Milano, Milan, Italy (60 students class – 8CFU) – abandoned from January 2017 for a new appointment in Turin.
2015-16	Contract Professor of Design of Complex Structures , School of Architecture, Politecnico di Milano, Milan, Italy (60 students class – 4CFU)
2015-16	Contract Professor of Theory of Structures , School of Architecture, Politecnico di Milano, Milan, Italy (120 students class – 6CFU)
2014-15	Contract Professor of Solids and Structural Mechanics , School of Architecture, Politecnico di Milano, Piacenza, Italy (140 students class – 6CFU)
2013-14	Contract Professor of Solids and Structural Mechanics , School of Architecture, Politecnico di Milano, Piacenza, Italy (120 students class – 6CFU)
2003-16	Lecturer of Solids and Structural Mechanics , School of Civil and Mechanical Engineering University of Pavia, Pavia, Italy and School of Building Engineering and Architecture, Politecnico di Milano, Lecco and Milan, Italy

Advisor of MSc Thesis

2007-present Long-span bridges: analysis, control systems implementation against wind and earthquakes. Control devices. Seismic risk analysis of nuclear power plants. Seismic analysis of nuclear buildings and large concrete dams. Simulation of shaking table tests on scaled structures. Dynamic analysis of power generators and supports. Community resilience. Seismic resilience.

Research and development activity aims to industrial patent and production

2006-2016 Press-fitting connections for multilayer pipes
Push-fit connections for multilayer pipes
Electro-fusion connections for polypropylene pipes
Electro-inductive semi-active devices for structural control of building
Generation 3+ NPP: traditional and base isolated configuration
Creasing and folding of laminated paperboards

Membership in Professional and Research Societies

EACS European Association for the Control of Structures
IABMAS International Association for Bridge Maintenance and Safety
ISHMII The International Society for Structural Health Monitoring of Intelligent Infrastructure - Membership Number: F18-01037
SPONSE International Association for the Seismic Performance of non-Structural Elements

Awards

2009 **Appreciation gratitude of the “Lombardia” Regional Council** for participation in emergency operations and inspections of buildings after the 2009 L’Aquila earthquake.
2012 **Research Assist Program Award of MSC Software USA** (three years). This award is given for meritorious

research developed by MSC finite element codes to 12 researchers each year around the world, involved in non-profit projects within academic institutions of recognized value (23 October 2012-2014).

- 2014 **Takuji Kobori Prize 2014** (https://onlinelibrary.wiley.com/page/journal/15452263/homepage/kobori_prize.html) to the paper “*A European Association for the Control of Structures joint perspective. Recent studies in civil structural control across Europe*” that has been judged to be the best among all the papers published in *Structural Control and Health Monitoring (SCHM)* - Wiley.
- 2017 **Best Speaker & Presentation at SHMII 8** (The 8th International Conference on Structural Health Monitoring of Intelligent Infrastructure 2017), Queensland University of Technology, Brisbane, Australia, 5-8 December, 2017.

Membership to International Journal

- **Associate Editor** of *Journal of Vibration and Control*, SAGE (from June 2017). Invited by the Editor-in-Chief Prof. Mehdi Ahmadian.
- **Associate Editor** of *Frontiers in Built Environment – Bridge Engineering* (from March 2018). Invited by the Editor in Chief Prof. I. Takewaki)
- **Associate Editor** of *Frontiers in Built Environment – Earthquake Engineering* (from March 2018). Invited by the Editor in Chief Prof. I. Takewaki)
- **Editorial Board Member** of *Structural Monitoring & Maintenance (SMM)*, Techno-Press Kaist (from January 2014). Invited by the Managing Editor.
- **Editorial Board Member** of *Bridge Engineering*, ICE, (from November 2015). Invited by the Chief of the Editorial Panel and the Managing Editor.

Reviewer for International Journals (<https://publons.com/author/1176951/marco-domaneschi#profile>)

- Journal of Bridge Engineering ASCE (invited by the Editors - Prof. Zhengqing Chen, Prof. B. Andrawes, Prof. Suren Chen).
- Journal of Vibration and Acoustics ASME (invited by the Editor - Prof. E. Dragoni).
- Structural Monitoring and Maintenance, Techno-Press, (invited by the Editor - Prof. T.H. Yi).
- Computers & Structures, Elsevier (invited by the Editor - Prof. B. Topping).
- Wind and Structures, An International Journal (invited by the Editor - Prof. Chang-Koon Choi).
- Proceedings of the Institution of Civil Engineers ICE - Bridge Engineering (invited by the Editor - A. Alvite).
- Structure and Infrastructure Engineering, Taylor and Francis Group (invited by the Editor - Prof. J.R. Casas).
- International Journal of Structural Stability and Dynamics, World Scientific (invited by the Editor - Prof. J. N. Reddy).

- Structural Control and Health Monitoring, Wiley & Sons (invited by the Editor - Prof. L. Faravelli).
- Smart Structures and Systems, Techno Press (invited by the Editor - Prof. F. Casciati).
- The Open Construction & Building Technology Journal, Bentham Open (invited by the Editor - Prof. O. Ribakov).
- Advances in Structural Engineering (invited by the Editor - Dr. S.Y. Zhu).
- Nuclear Engineering and Design, Elsevier (invited by the Editor - Prof. D. Bestion).
- Journal of Earthquake Engineering (invited by the Editor – Prof. A. S. Elnashai, Prof. Kazuhiko Kawashima, Prof. G.M. Calvi).
- Ain Shams Engineering Journal (invited by the Editor – Prof. Amin Kamel El-kharbotly).
- Journal of Vibration and Control (invited by the Editors – Prof. Josè Rodellar, Prof. Valder Steffen).
- Earthquake Engineering and Engineering Vibrations, Springer (invited by the Editor – Dr. Xiang-Jian Wang).
- World Journal of Engineering and Physical Sciences, World Science Research Journals (invited by the Editor).
- Shock and Vibration, Hindawi Publishing Corporation (su invito dell'Editore)
- Periodica Polytechnica Civil Engineering (invited by the Editor – Dr. M. Bruggi).
- Journal of Zhejiang University-SCIENCE A, Elsevier, (invited by the Editor - Dr. Helen Zhang).
- Journal of Structural Engineering ASCE (invited by the Editor - Prof. Biswajit Basu).
- Computer-Aided Civil and Infrastructure Engineering (invited by the Editor - Prof. Hojjat Adeli).
- Meccanica (invited by the Editor - Prof. Claudia Comi).
- Mathematical Problems in Engineering, Hindawi (invited by the Editorial Board Member Dr. Zhen-Lai Han).
- Journal of Traffic and Transportation Engineering, Elsevier (invited by the Editor Prof. Richard Kim).
- And others.

Membership to Congress Editorial Board

- *Twelfth International Conference on Civil, Structural and Environmental Engineering Computing*, 2009, Madera (P). Invited by the Conference Chair.
- *Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing*, 2011, Crete (GR). Invited by the Conference Chair.
- *Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing*, 2013, Cagliari (I). Invited by the Conference Chair.
- *Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing*, 2015, Prague, Czech Republic. Invited by the Conference Chair.

Membership to Congress Organization

- *5th European Conference on Structural Control*, 2012, Genoa (I). Invited by the Conference Chair.
- *6th International Conference on Bridge Maintenance, Safety and Management*, 2012, Stresa (I). Invited by the Conference Chair.
- *6th World Conference on Structural Control and Monitoring*, 2014, Barcelona (E). Invited by the Conference Chair.
- *1st International Workshop on Resilience*, 2016, Turin (I). Invited by the Conference Chair.

Chaired Congress Sessions

- Parallel Session: “Control of Structures” in the *Twelfth International Conference on Civil, Structural and Environmental Engineering Computing*, 2009, Madera, P. Invited by the Conference Chair.
- Special Session: “Nuclear Power Plant and Related Analysis” in the *Thirteen International Conference on Civil, Structural and Environmental Engineering Computing*, 2011, Crete, GR. Invited by the Conference Chair.
- Special Session 10: “Bridge control schemes and devices”, in the *5th European Conference on Structural Control*, 2012, Genoa, I. Invited by the Conference Chair.
- Parallel Session: “Control” in the *5th European Conference on Structural Control*, 2012, Genoa, I. Invited by the Conference Chair.
- Special Session 26: “Structural Control of Bridges and Footbridges: Extreme and Every-days Events” in the *6th International Conference on Bridge Maintenance, Safety and Management, 2012, Stresa, I*. Invited by the Conference Chair.
- Special Session: “Bridges and Footbridges: Control Schemes and Devices”, in the *World Conference on Structural Control and Monitoring (6WCSCM), 2014, Barcelona, Spain*. Invited by the Conference Chair.
- Parallel Session: “Civil Structures I”, in the *International Workshop on Structural Health Monitoring 2015”, Stanford, CA-USA, September 1-3, 2015.* Invited by the Conference Chair.
- Special Session: “Virtual cities for real-wold crisis management and resilience assessment of communities and infrastructures II”, in “*6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering - COMPDYN 2017*”, 15-17 June 2017, Rhodes Island, Greece. Invited by the Conference Chairs.
- Invited to chair the Parallel Session: “Civil Structures I”, in the *International Workshop on Structural Health Monitoring 2017*, Stanford, CA-USA, September 12-14, 2017. Invited by the Conference Chair.
- Parallel Session: “Damage Identification”, in *8th International Conference on Structural Health Monitoring of Intelligent Infrastructure 2017 (SHMII-8)*, Queensland University of Technology, Brisbane, Australia, 5-8 December, 2017. Invited by the Conference Chairs.

Seminars

- “Seminar on Structural Control with Applications to Special Structures”, September 2013 at the Department of Civil and Environmental Engineering, Princeton University, USA. Invited by the Faculty.
- “Seminar on Structural Control of Long-span Bridges under Seismic and Wind Excitations”, March, 2011 at the *Departament de Matemàtica Aplicada III*, Technical University of Barcelona, E. Invited by the Faculty.
- “Seminar on Structural Control Elements” for the MSc course of Structural Dynamics at the Politecnico di Milano. AYs from 2007/08 to 2012/13. Invited by the Faculty.
- “Seminar on testing techniques for materials, dynamics, monitoring and control” (in mechanical laboratory with shaking table, universal test machine, monitoring devices and other facilities) for the MSc course of Structural Mechanics at the University of Pavia. AYs from 2002/03 to 2005/06. Invited by the Faculty.
- “Seminar on FE application and solution” (in numerical laboratory) for the MSc course of Soil-Structure Interaction at the University of Pavia. AYs from 2002/03 to 2005/06. Invited by the Faculty.

Organizer of the following Conference Special Sessions

- “Nuclear Power Plant and Related Analysis” in the *Thirteen International Conference on Civil, Structural and Environmental Engineering Computing*, 2011, Crete, GR.
- “Structural Control of Bridges and Footbridges: Extreme and Every-days Events” in *the 6th International Conference on Bridge Maintenance, Safety and Management*, 2012, Stresa, I.
- “Bridge control schemes and devices” in the *5th European Conference on Structural Control*, 2012, Genoa, I.
- “Bridges and footbridges: control schemes and devices” in the *6th edition of the World Conference of the International Association for Structural Control and Monitoring*, 2014, Barcelona, E.
- “SS18: Dynamic Assessment, Control & Monitoring of Structures by Experimental & Numerical Methods” in the *SEMC 2016: THE SIXTH INTERNATIONAL CONFERENCE ON STRUCTURAL ENGINEERING, MECHANICS AND COMPUTATION*, 5 - 7 September 2016, Cape Town, South Africa.
- “Mini Symposium MS13 - CIM: Community Information Modeling - the new frontier of Civil Engineering, 9th International Conference on Bridge Maintenance, Safety and Management” in the *IABMAS 2018*, 9-13 July 2018, Melbourne, Australia.

Speaker at Recent International Congresses

- “3D Numerical Characterization and Efficiency Assessment of RNC Isolator Experimental Prototypes”, *EACS 2012 – 5th European Conference on Structural Control*, Genoa (I), 2012.
- “Some remarks on the mitigation of long-span bridges structural vibrations induced by wind and earthquake”, *EACS 2012 –*

- 5th European Conference on Structural Control*, Genoa (I), 2012.
- “SEISMIC PERFORMANCE OF A WIND DESIGNED CONTROL STRATEGY ON A SUSPENSION BRIDGE”, *The 6th International Conference on Bridge Maintenance, Safety and Management (IABMAS 2012)*, Stresa (I), 2012.
 - “SEISMIC PROTECTION OF THE UPDATED CABLE-STAYED BRIDGE BENCHMARK WITH RNC PASSIVE DEVICES”, *The 6th International Conference on Bridge Maintenance, Safety and Management (IABMAS 2012)*, Stresa (I), 2012.
 - “Vibration-based Damage Localization in a Cable-stayed Bridge”, *World Conference on Structural Control and Monitoring (6WCSCM)*, Barcelona (E), 2014.
 - “Modeling the Seismic Protection of the Updated Cable-Stayed Bridge Benchmark with Roll-N-Cage Devices”, *World Conference on Structural Control and Monitoring (6WCSCM)*, Barcelona (E), 2014.
 - “Assessing the performance of a high damping rubber bearing in beyond-design conditions”, *International Workshop on Structural Health Monitoring 2015*, September 1-3, 2015, Stanford, CA-USA.
 - “Challenges in damage identification based on finite element analyses and monitoring of neutral axis and curvature of concrete-steel composite structures”, *International Workshop on Structural Health Monitoring 2015*, September 1-3, 2015, Stanford, CA-USA.
 - “Immediate resilience: numerical simulation and implementation issues”, *IWR2016 – 1st International Workshop on Resilience*, 20-22 September 2016, Politecnico di Torino - Turin & JRC – Ispra, Italy.
 - “Exploring simulation tools for urban seismic analysis and resilience assessment”, *6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering - COMPDYN 2017*, 15-17 June 2017, Rhodes Island, Greece.
 - “Resilience assessment of high damping rubber bearings in beyond-design conditions”, *8th International Conference on Structural Health Monitoring of Intelligent Infrastructure 2017 (SHMII-8)*, Queensland University of Technology, Brisbane, Australia, 5-8 December, 2017.
 - “Modal identification of a flexible footbridge using output-only methods”, *8th International Conference on Structural Health Monitoring of Intelligent Infrastructure 2017 (SHMII-8)*, Queensland University of Technology, Brisbane, Australia, 5-8 December, 2017.

Research funding

On-going Grants

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role</i>	<i>Topics</i>
IDEAL RESCUE	ERC	1.3 M€	2015-2020	Participating and	Seismic protection of

ERC-StG-2014			5 years	supporting the PI (Principal Investigator) in the development of the WPs and the fulfilment of the objectives.	structures, numerical simulations, experimental tests on shaking table and monitoring
IDEAL SENSOR ERC-PoC-2016_727261	ERC	150K€	2017-2018 1 years	Participating and supporting the PI in the development of the WPs and the fulfilment of the objectives.	Monitoring and emergency evacuation
Starting Grant in Seismic Eng.	Politecnico di Torino	15K€	2017-2019 3 years	PI	Seismic Eng.
BIM technology development for seismic risk assessment	Politecnico di Torino - DISEG	35K€ 4 participants	From March 5 2018	Participant	Seismic Eng.

Past Grants

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role</i>	<i>Topics</i>
IRIS (International Reactor Innovative and Secure)	Westinghouse Electric Corporation	About 25M\$ 24 participants	2000-2015	Participating and supporting the partner (i.e. Politecnico di Milano) in the fulfilment of the objective (NPP safety analysis)	Probabilistic Safety Assessment
Research contracts with the industry	COES Company	150K€	2007-2015	PI for the development of new products (composite piping and fitting) and patent participation	Numerical simulation, mechanical analysis, experimental tests, products development and patent
INTAS Project ID: 2003-51-5547	EC CORDIS	240K€ 7 participants	2004-2007	Participating and supporting the coordinator (University	Structural control and monitoring, experimental analysis

				of Pavia) in the fulfilment of the objectives and the coordination of the partners	(in laboratory and on real structures), laboratory facility (shaking table, multixial test, ...)
WIND-CHIME - Project ID: 509085	EC CORDIS	1M€ 12 participants	2004-2007	Participating and supporting the coordinator (University of Pavia) in the fulfilment of the objectives and the coordination of the partners	Structural control and monitoring, experimental analysis (in laboratory and on real structures), laboratory facility (shaking table, multixial test, ...)

Research Cooperation with Academies, Organization and Visiting Researcher Activities

- Politecnico di Milano (seismic risk of NPP, structural control and monitoring of long-span bridges, seismic analysis of large concrete dams).
- Technical University of Barcelona UPC (RNC innovative isolation system and application on bridges).
- Honshu-Shikoku Bridge Expressway Company Limited – HSBE, Japan (simulation of control solution and damage detection techniques on the Shimotsui-Seto suspension bridge).
- Technical University of Turin (structural control and damage detection methods on bridges).
- University of Pavia (structural control and monitoring, fragility analysis of bridges).
- Russian Academy of Sciences, Moscow, Russia (structural control during the PhD course).
- University of New York at Buffalo (control of bridges and fragility analysis during the PhD course).
- Princeton University (development of monitoring techniques and damage detection methods on viaduct and bridges).
- Politecnico di Torino (seismic engineering and resilience).
- University of Chile, Civil Engineering Department, Santiago, Chile (modelling the human behavior under seismic excitation).
- University of California Berkeley, Department of Civil and Environmental Engineering, Berkeley CA USA (Resilience, ABM modelling, emergency evacuation, modelling human behavior).

Publications

NATIONAL JOURNALS

- [1] **F. Casciati, M. Domaneschi, P. Sattamino** (2006), “Simulazione numerica dei dispositivi di vincolo e controllo in ponti sospesi”, *Analisi e Calcolo*, Anno VII, 22:13-17. ISSN 1128-3874.
- [2] **M. Domaneschi** (2013), “Riproduzione della frattura tramite simulazioni numeriche supportate da sperimentazioni di laboratorio”, *Analisi e Calcolo*, Anno XIV, 54:58-61. ISSN 1128-3874.
- [3] **M. Domaneschi, L. Martinelli** (2015), “Il controllo strutturale delle vibrazioni nell'ingegneria civile”, *Structural*, DELETTERA, 194 - Febbraio/Marzo 2015, Paper 08. ISSN 2282-3794.
DOI: 10.12917/Stru194.08.

INTERNATIONAL JOURNALS

- [4] **F. Casciati, M. Domaneschi and L. Faravelli** (2004), “Design and Implementation of a Pointer System Controller”, *Nonlinear Dynamics*, 36:203-215.
DOI: 10.1023/B:NODY.0000045508.60498.a2.
- [5] **S. Casciati, M. Domaneschi, D. Inaudi**, “Damage assessment from SOFO dynamic measurements”, *17th International Conference on Optical Fibre Sensors*; Marc Voet, Reinhardt Willsch, Wolfgang Ecke, Julian Jones, Brian Culshaw; Eds., Bruges, Belgium, May 2005. *Proceedings of SPIE - The International Society for Optical Engineering*, Volume 5855 PART II, 2005, Article number 258, Pages 1048-1051.
DOI: 10.1117/12.623656.
- [6] **S. Casciati, M. Domaneschi, D. Inaudi**, “Local damage detection from dynamic SOFO experimental data”, *Smart Structures and Materials 2005: Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems*; Masayoshi Tomizuka; Ed., San Diego, USA, May 2005. *Proceedings of SPIE - The International Society for Optical Engineering*, Volume 5765, Issue PART 2, 2005, Article number 62, Pages 591-599.
DOI: 10.1117/12.600440.
- [7] **S. Casciati, M. Domaneschi** (2007), “Random imperfection fields to model the size effect in laboratory wood specimens”, *Structural Safety*, 29(4):308-321.
DOI:10.1016/j.strusafe.2006.07.014.
- [8] **F. Casciati, M. Domaneschi** (2007), “Semi-active Electro-inductive Devices: Characterization and Modelling”, *Journal of Vibration and Control*, 13(6):815-838.
DOI: 10.1177/1077546307077465.
- [9] **F. Casciati, G. P. Cimellaro, M. Domaneschi** (2008), “Seismic reliability of a cable-stayed bridge retrofitted with hysteretic devices”, *Computers and Structures*, 86:1769-1781.

DOI: 10.1016/j.compstruc.2008.01.012.

- [10] **S. De Grandis, M. Domaneschi, F. Perotti** (2009), “A numerical procedure for computing the fragility of NPP components under random seismic excitation”, *Nuclear Engineering and Design*, 239(11):2491-2499.
DOI: 10.1016/j.nucengdes.2009.06.027.
- [11] **M. Domaneschi** (2010), “Feasible control solutions of the ASCE benchmark cable-stayed bridge”, *Structural Control and Health Monitoring*, 17(6):675-693.
DOI: 10.1002/stc.346.
- [12] **M. Forni, A. Poggianti, F. Bianchi, G. Forasassi, R. Lo Frano, G. Pugliese, F. Perotti, L. Corradi dell’Acqua, M. Domaneschi, M. D. Carelli, M. A. Ahmed, A. Maioli**, “Seismic Isolation of the IRIS Nuclear Plant”, *2009 ASME Pressure Vessels and Piping Conference, PVP 2009*, Prague; 26 July 2009 through 30 July 2009; Code 80491. *American Society of Mechanical Engineers, Pressure Vessels and Piping Division (Publication) PVP*, Volume 8, 2010, Pages 289-296. ISSN: 0277027X. ISBN: 978-079184371-0.
DOI:10.1115/PVP2009-78042.
- [13] **M. Domaneschi, L. Martinelli** (2013) ,”Optimal Passive and Semi-active Control of a Wind Excited Suspension Bridge”, *Structure and Infrastructure Engineering*, 9(3):242-259.
DOI:10.1080/15732479.2010.542467.
- [14] **M. Domaneschi, L. Martinelli** (2012), “Performance Comparison of Passive Control Schemes for the Numerically Improved ASCE Cable-Stayed Bridge Model”, *Earthquakes and Structures*, 3(2):181-201.
DOI:10.12989/eas.2012.3.2.181.
- [15] **M. Domaneschi** (2012), “Simulation of Controlled Hysteresis by the Semi-active Bouc-Wen Model”, *Computers and Structures*, 106–107:245–257.
DOI:10.1016/j.compstruc.2012.05.008.
- [16] **M. Domaneschi** (2012), “Experimental and numerical study of standard impact tests on poly-propylene pipes with brittle behaviour”, *Journal of Engineering Manufacture, Proc. IMechE Part B*, 226(12):2035–2046.
DOI: 10.1177/0954405412461983.
- [17] **C. Shi, M. Domaneschi, L. Martinelli** (2012), “Nonlinear Behaviors of Submerged Floating Tunnels under Seismic Excitation”, *Applied Mechanics and Materials*, 226-228:1124-1127.
DOI:10.4028/www.scientific.net/AMM.226-228.1124.
- [18] **M. Ismail, J. Rodellar, G. Carusone, M. Domaneschi, L. Martinelli** (2013), “Characterization, modeling and assessment of Roll-N-Cage isolator using

the cable-stayed bridge benchmark”, *Acta Mechanica*, 224, 525–547.
DOI: 10.1007/s00707-012-0771-4.

- [19] **M. Domaneschi, L. Martinelli, C. Shi** (2013), “Aeolic and Seismic Structural Vibrations Mitigation on Long-Span Cable-Supported Bridges”, *Advanced Materials Research*, 690-693: 1168-1171.
DOI: 10.4028/www.scientific.net/AMR.690-693.1168.
- [20] **F. Perotti, M. Domaneschi, S. De Grandis** (2013), “The numerical computation of seismic fragility of base-isolated NPP buildings”, *Nuclear Engineering and Design*, 262:189–200.
DOI: 10.1016/j.nucengdes.2013.04.029.
- [21] **M. Domaneschi, M.P. Limongelli, L. Martinelli** (2013), “Interpolation damage detection method on a suspension bridge model: Influence of sensors disturbances”, *Key Engineering Materials*, 569-570: 734-741.
DOI: 10.4028/www.scientific.net/KEM.569-570.734.
- [22] **M. Domaneschi, L. Martinelli** (2014), “Extending the Benchmark Cable-Stayed Bridge for Transverse Response under Seismic Loading”, *Journal of Bridge Engineering ASCE*, 19 (3), art. no. 4013003.
DOI: 10.1061/(ASCE)BE.1943-5592.0000532.
- [23] **M. Domaneschi, L. Martinelli** (2014), “Refined Optimal Passive Control of Buffeting-induced Wind Loading of a Suspension Bridge”, *Wind & Structures, an International Journal*, 18, 1-20.
DOI: <http://dx.doi.org/10.12989/was.2014.18.1.001>.
- [24] **M. Domaneschi, M.P. Limongelli, L. Martinelli** (2013), “Vibration Based Damage Localization Using MEMS on a Suspension Bridge Model”, *Smart Structures and Systems*, 12(6), 679-694.
DOI: <http://dx.doi.org/10.12989/sss.2013.12.6.679>.
- [25] **M. Domaneschi, M.P. Limongelli, L. Martinelli** (2013), “Multi-Site Damage Localization in a Suspension Bridge via Aftershock Monitoring”, *Ingegneria Sismica - International Journal of Earthquake Engineering*, 30(3), 56-72.
- [26] **B. Basu, O. Bursi, F. Casciati, S. Casciati, A. Del Grosso, M. Domaneschi, L. Faravelli, J. Holnicki, H. Irschik, M. Krommer, M. Lepidi, A. Martelli, B. Oztork, F. Pozo, G. Pujol, Z. Rakicevic, J. Rodellar** (2014), “An EACS joint perspective. Recent studies in civil structural control across Europe”, *Structural Control & Health Monitoring*, 21(12), 1414–1436.
DOI: 10.1002/stc.1652.
- [27] **M. Domaneschi, M.P. Limongelli, L. Martinelli** (2015), “Damage detection and localization on a benchmark cable-stayed bridge”, *Earthquakes and Structures*, 8(5), 1113-1126.

DOI: <http://dx.doi.org/10.12989/eas.2015.8.5.1113>.

- [28] **M. Domaneschi, L. Martinelli, E. Po** (2015), “Control of Wind Buffeting Vibrations in a Suspension Bridge by TMD: hybridization and robustness issues”, *Computers and Structures*, 155, 3-17.
DOI: 10.1016/j.compstruc.2015.02.031.
- [29] **G. De Mari, M. Domaneschi, M. Ismail, L. Martinelli, J. Rodellar** (2015), “Reduced-order coupled bidirectional modeling of the Roll-N-Cage isolator with application to the updated bridge benchmark”, *Acta Mechanica*, 226(10), 3533-3553.
DOI: 10.1007/s00707-015-1394-3
- [30] **M. Domaneschi, L. Martinelli, F. Perotti** (2016), “Wind and earthquake protection of cable-supported bridges”, *Proceedings of the Institution of Civil Engineers - Bridge Engineering*, 169(BE3), 157–171.
DOI: 10.1680/bren.14.00026.
- [31] **M. Domaneschi, L. Martinelli** (2016), “Earthquake resilience-based control solutions for the extended benchmark cable-stayed bridge”, *Journal of Structural Engineering, ASCE*, 142 (8), art. no. 4015009.
DOI: 10.1061/(ASCE)ST.1943-541X.0001392.
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