

Giuseppe Quaranta, Ph.D. – Short Scientific Curriculum Vitae



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RESEARCH INTERESTS

Structural Monitoring and Control

- Sensing systems for structural monitoring
- Dynamic identification
- Diagnostic of civil structures and infrastructures
- Passive devices for vibrations control of structures

Structural Concrete

- Analysis and design of reinforced concrete structures
- Analysis and design of truss-reinforced composite steel-concrete beams

PUBLICATIONS

Journal Articles

1. A. Pelle, B. Briseghella, A. V. Bergami, G. Fiorentino, G. F. Giaccu, D. Lavorato, G. Quaranta, A. Rasulo, C. Nuti, “Time-dependent cyclic behavior of RC bridge columns under chlorides-induced corrosion and rebars buckling”, *Structural Concrete*, accepted for publication
2. A. Boccamazzo, B. Carboni, G. Quaranta, W. Lacarbonara, “Seismic effectiveness of hysteretic tuned mass dampers for inelastic structures”, *Engineering Structures*, 216, 110591, 2020
3. G. Quaranta, W. Lacarbonara, S. F. Masri, “A review on computational intelligence for identification of nonlinear dynamical systems”, *Nonlinear Dynamics*, 99(2), 1709-1761, 2020
4. G. Di Gangi, C. Demartino, G. Quaranta, G. Monti, “Dissipation in sheathing-to-framing connections of light-frame timber shear walls under seismic loads”, *Engineering Structures*, 208, 110246, 2020
5. G. Quaranta, G. Formica, J. Terneiro Machado, W. Lacarbonara, S. F. Masri, “Understanding COVID-19 nonlinear multi-scale dynamic spreading in Italy”, *Nonlinear Dynamics*, 101, 1583-1619, 2020
6. O. AlShawa, G. Angelucci, F. Mollaioli, G. Quaranta, “Quantification of energy-related parameters for near-fault pulse-like seismic ground motions”, *Applied Sciences* (Special Issue “Effects of near-fault ground motions on civil infrastructure”), 10(21), 7578, 2020
7. J. Naranjo-Pérez, J. F. Jiménez-Alonso, I. M. Díaz, G. Quaranta, A. Sáez, “Motion-based design of passive damping systems to reduce wind-induced vibrations of stay cables under uncertainty conditions”, *Applied Sciences* (Special Issue “Recent advances in the design of structures with passive energy dissipation systems”), 10(5), 1740, 2020
8. G. Di Gangi, C. Demartino, G. Quaranta, “Bamboo lightweight shear walls: modeling and identification of sheathing-to-framing connections for seismic response analysis”, *International Journal of Structural Glass and Advanced Materials Research*, 4, 149-159, 2020

9. C. Maruccio, G. Quaranta, G. Grassi, “Reduced-order modeling with multiple scales of electromechanical systems for energy harvesting”, *The European Physical Journal Special Topics* (Special Issue “Energy harvesting and applications”), 228(7), 1605-1624, 2019
10. F. Trentadue, G. Quaranta, C. Maruccio, G. C. Marano, “Energy harvesting from piezoelectric strips attached to systems under random vibrations”, *Smart Structures and Systems*, 24(3), 333-343, 2019
11. G. Quaranta, F. Mollaioli, “Analysis of near-fault pulse-like seismic signals through Variational Mode Decomposition technique”, *Engineering Structures*, 193, 121-135, 2019
12. G. Quaranta, C. Demartino, Y. Xiao, “Experimental dynamic characterization of a new composite glulam-steel truss structure”, *Journal of Building Engineering*, 25, 100773, 2019
13. G. Fiorentino, G. Quaranta, G. Mylonakis, D. Lavorato, A. Pagliaroli, G. Carlucci, F. Sabetta, G. Della Monica, G. Lanzo, V. Aprile, G. C. Marano, B. Briseghella, G. Monti, N. Squeglia, R. Bartelletti, C. Nuti, “Seismic reassessment of the leaning Tower of Pisa: monitoring, site response and SSI”, *Earthquake Spectra*, 35(2), 703-736, 2019
14. C. Maruccio, M. Scigliuzzo, S. Rizzato, P. Scarlino, G. Quaranta, M. S. Chiriaco, A. G. Monteduro, G. Maruccio, “Frequency and time domain analysis of surface acoustic wave propagation on a piezoelectric GaAs substrate: a computational insight”, *Journal of Intelligent Material Systems and Structures*, 30(6), 801-812, 2019
15. A. Kefal, C. Maruccio, G. Quaranta, E. Oterkus, “Modelling and parameter identification of electromechanical systems for energy harvesting and sensing”, *Mechanical Systems and Signal Processing*, 121, 890-912, 2019
16. A. Fiore, F. Mollaioli, G. Quaranta, G. C. Marano, “Seismic response prediction of reinforced concrete buildings through nonlinear combinations of intensity measures”, *Bulletin of Earthquake Engineering*, 16(12), 6047-6076, 2018
17. G. Monti, F. Fumagalli, G. Quaranta, M. Sgroi, M. Tommasi, “A permanent wireless dynamic monitoring system for the Colosseum in Rome”, *Journal of Structural Integrity and Maintenance*, 3(2), 75-85, 2018
18. C. Maruccio, G. Quaranta, P. Montegiglio, F. Trentadue, G. Acciani, “A two-step hybrid approach for modelling the nonlinear dynamic response of piezoelectric energy harvesters”, *Shock and Vibration* (Special Issue “Vibration energy harvesting for monitoring dynamical systems”), 2054873, 2018
19. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, “Analysis of piezoelectric energy harvester under modulated and filtered white Gaussian noise”, *Mechanical Systems and Signal Processing*, 104, 134-144, 2018
20. G. Quaranta, F. Mollaioli, “On the use of the equivalent linearization for bilinear oscillators under pulse-like ground motion”, *Engineering Structures*, 160, 395-407, 2018
21. G. Quaranta, F. Trentadue, G. C. Marano, “Closed-form approximation of the axial force-bending moment interaction diagram for hollow circular reinforced concrete cross-sections”, *Engineering Structures*, 153, 516-524, 2017
22. F. Trentadue, G. Quaranta, G. C. Marano, “Closed-form approximations of the interaction diagrams for assessment and design of reinforced concrete columns and concrete-filled steel tubes with circular cross-section”, *Engineering Structures*, 127, 594-601, 2016
23. W. Lacarbonara, B. Carboni, G. Quaranta, “Nonlinear normal modes for damage detection”, *Meccanica*, 51(11), 2629-2645, 2016
24. C. Maruccio, G. Quaranta, L. De Lorenzis, G. Monti, “Energy harvesting from electrospun piezoelectric nanofibers for structural health monitoring of a cable-stayed bridge”, *Smart Materials and Structures*, 25(8), 085040, 2016

25. N. Nisticò, S. Gambarelli, A. Fascetti, G. Quaranta, “Experimental dynamic testing and numerical modeling of historical belfry”, *International Journal of Architectural Heritage*, 10(4), 476-485, 2016
26. G. Quaranta, F. Mollaioli, G. Monti, “Effectiveness of design procedures for linear TMD installed on inelastic structures under pulse-like ground motion”, *Earthquakes and Structures*, 10(1), 239-260, 2016
27. G. Quaranta, B. Carboni, W. Lacarbonara, “Damage detection by modal curvatures: numerical issues”, *Journal of Vibration and Control*, 22(7), 1913-1927, 2016
28. A. Scodreggio, G. Quaranta, G. C. Marano, G. Monti, R. B. Fleischman, “Optimization of force-limiting seismic devices connecting structural subsystems”, *Computers and Structures*, 162, 16-27, 2016
29. A. Fiore, G. Quaranta, G. C. Marano, G. Monti, “Evolutionary polynomial regression-based statistical determination of the shear capacity equation for reinforced concrete beams without stirrups”, *ASCE Journal of Computing in Civil Engineering*, 30(1), 04014111, 2016
30. F. Trentadue, G. Quaranta, R. Greco, G. C. Marano, “New analytical model for the hoop contribution to the shear capacity of circular reinforced concrete columns”, *Computers and Concrete*, 14(1), 59-71, 2014
31. G. Quaranta, G. C. Marano, R. Greco, G. Monti, “Parametric identification of seismic isolators using differential evolution and particle swarm optimization”, *Applied Soft Computing*, 22, 458-464, 2014
32. G. Quaranta, A. Fiore, G. C. Marano, “Optimum design of prestressed concrete beams using constrained differential evolution algorithm”, *Structural and Multidisciplinary Optimization*, 49(3), 441-453, 2014
33. G. Quaranta, G. C. Marano, F. Trentadue, G. Monti, “Numerical study on the optimal sensor placement for historic swing bridge dynamic monitoring”, *Structure and Infrastructure Engineering*, 10(1), 57-68, 2014
34. F. Trentadue, G. Quaranta, “Limit analysis of frictional block assemblies by means of fictitious associative-type contact interface laws”, *International Journal of Mechanical Sciences*, 70, 140-145, 2013
35. G. C. Marano, R. Greco, G. Quaranta, A. Fiore, J. Avakian, D. Cascella, “Parametric identification of nonlinear devices for seismic protection using soft computing techniques”, *Advanced Materials Research*, 639, 118-129, 2013
36. G. Quaranta, S. K. Kunnath, N. Sukumar, “Maximum-entropy meshfree method for nonlinear static analysis of planar reinforced concrete structures”, *Engineering Structures*, 42, 179-189, 2012 (Corrigendum, *Engineering Structures*, 60, 1, 2014)
37. F. Trentadue, G. Quaranta, G. C. Marano, G. Monti, “Simplified lateral-torsional buckling analysis in special truss-reinforced composite steel-concrete beams”, *ASCE Journal of Structural Engineering*, 137(12), 1419-1427, 2011
38. G. Quaranta, “Finite element analysis with uncertain probabilities”, *Computer Methods in Applied Mechanics and Engineering*, 200(1-4), 114-129, 2011
39. G. C. Marano, G. Quaranta, G. Monti, “Modified genetic algorithm for the dynamic identification of structural systems using incomplete measurements”, *Computer aided Civil and Infrastructure Engineering*, 26(2), 92-110, 2011
40. G. C. Marano, G. Monti, G. Quaranta, “Comparison of different optimum criteria for sensor placement in lattice towers”, *The Structural Design of Tall and Special Buildings*, 20(8), 1048-1056, 2011
41. G. Quaranta, F. Petrone, G. C. Marano, F. Trentadue, G. Monti, “Structural design of composite concrete-steel beams with spatial truss reinforcement elements”, *Asian Journal of Civil Engineering*, 12(2), 155-178, 2011

42. G. Quaranta, G. Monti, G. C. Marano, “Parameters identification of Van der Pol – Duffing oscillators via particle swarm optimization and differential evolution”, *Mechanical Systems and Signal Processing* (Special Issue “ISMA 2010”), 24(7), 2076-2095, 2010
43. G. Monti, G. Quaranta, G. C. Marano, “Genetic-algorithm-based strategies for dynamic identification of nonlinear systems with noise corrupted response”, *ASCE Journal of Computing in Civil Engineering*, 24(2), 173-187, 2010
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45. G. C. Marano, G. Quaranta, “A new possibilistic reliability index definition”, *Acta Mechanica*, 210(3-4), 291-303, 2010
46. G. C. Marano, G. Quaranta, S. Sgobba, “Fuzzy-entropy based robust optimization criteria for tuned mass dampers”, *Earthquake Engineering and Engineering Vibration*, 9(2), 285-294, 2010
47. G. C. Marano, E. Morrone, G. Quaranta, “Analysis of randomly vibrating structures under hybrid uncertainty”, *Engineering Structures*, 31(11), 2677-2686, 2009
48. G. C. Marano, G. Quaranta, “Robust optimum criteria for tuned mass dampers in fuzzy environments”, *Applied Soft Computing*, 9(4), 1232-1243, 2009
49. G. C. Marano, G. Quaranta, R. Greco, “Multi-objective optimization by genetic algorithm of structural systems subject to random vibrations”, *Structural and Multidisciplinary Optimization*, 39(4), 385-399, 2009
50. G. C. Marano, G. Quaranta, “Fuzzy-based robust structural optimization”, *International Journal of Solids and Structures*, 45(11-12), 3544-3557, 2008
51. G. C. Marano, G. Quaranta, M. Mezzina, “Fuzzy time-dependent reliability analysis of RC beams subject to pitting corrosion”, *ASCE Journal of Materials in Civil Engineering*, 20(9), 578-587, 2008

Books and Monographs

1. W. Lacarbonara, A. Arena, G. Quaranta, G. Rega, G. Ruta, V. Settimi, M. Talò, *Book of Abstracts of the First International Nonlinear Dynamics Conference*, NODYS srl Ed., ISBN 978-88-944229-0-0, 2019
2. F. Trentadue, G. C. Marano, G. Quaranta, E. Mastromarino, *La instabilità delle travi reticolari miste autoportanti*, Waveng srl Ed., ISBN 978-88-903782-2-5, 2011 (in Italian)

Book Chapters

1. G. Angelucci, G. Quaranta, F. Mollaioli, “Energy-based topology optimization under stochastic seismic ground motion: preliminary framework”, in: A. Benavent-Climent, F. Mollaioli (Editors), *Energy-based seismic engineering. IWEBSE 2021. Lecture Notes in Civil Engineering*, Springer, Volume 155, pp. 205-219, 2021.
2. A. Boccamazzo, B. Carboni, G. Quaranta, W. Lacarbonara, “Optimization strategies of hysteretic tuned mass dampers for seismic control”, in W. Lacarbonara, B. Balachandran, J. Ma, T. Machado J. and G. Stepan (Editors), *Nonlinear Dynamics and Control*, Springer, pp. 99-106, 2020
3. A. Fiore, G. Quaranta, G. C. Marano, “Evaluation of the plastic hinge length for nonlinear analysis of reinforced concrete buildings”, in J. Kruis, Y. Tsompanakis and B.H.V. Topping (Editors), *Computational Techniques for Civil and Structural Engineering*, Saxe-Coburg Publications, Chapter 11, pp 255-280, 2015
4. F. Mosti, G. Quaranta, W. Lacarbonara, “Numerical and experimental assessment of the modal curvature method for damage detection in plate structures”, in M. Belhaq (Editor), *Structural Nonlinear Dynamics and Diagnosis*, Springer, Chapter 3, pp 59-68, 2015

5. G. Quaranta, G. C. Marano, “Soft computing applications in structural dynamic monitoring”, in Y. Tsompanakis, P. Iványi, B. H. V. Topping, (Editors), *Civil and Structural Engineering Computational Methods*, Saxe-Coburg Publications, Chapter 8, pp 157-170, 2013
6. G. C. Marano, G. Quaranta, J. Avakian, A. Palmeri, “Identification of passive devices for vibration control by evolutionary algorithms”, in A. H. Gandomi, X.-S. Yang, S. Talatahari, A. H. Alavi, (Editors), *Metaheuristic Applications in Structures and Infrastructures*, Elsevier, Chapter 15, pp 373-387, 2013
7. G. C. Marano, G. Quaranta, G. Monti, “Genetic algorithms in mechanical systems identification: state-of-the-art review”, in B. H. V. Topping, Y. Tsompanakis, (Editors), *Soft Computing in Civil and Structural Engineering*, Saxe-Coburg Publications, Chapter 2, pp 43-72, 2009

Conference Contributions (selected full papers, abstracts and posters)

1. G. Angelucci, G. Quaranta, F. Mollaioli, “Optimal lateral resisting systems for high-rise buildings under seismic excitations”, *8th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering* (COMPDYN 2021), online, June 28-30, 2021
2. L. Aceto, G. Quaranta, G. Camata, B. Briseghella, E. Spacone, “Optimum design of a hybrid isolation device for server racks using constrained differential evolution algorithm”, *8th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering* (COMPDYN 2021), online, June 28-30, 2021
3. A. Boccamazzo, B. Carboni, G. Quaranta, W. Lacarbonara “Hysteretic tuned mass dampers for seismic protection”, *9th International Workshop on Reliable Engineering Computing* (REC 2021), online, May 17-20, 2021
4. G. Quaranta, D. Lavorato, G. F. Giaccu, A. V. Bergami, A. Rasulo, B. Briseghella, C. Nuti, “Multiphysics finite element analysis and capacity assessment of reinforced concrete bridge piers exposed to chlorides”, *Italian Concrete Days* (ICD 2020), online, April 14-16, 2021
5. D. De Domenico, G. Quaranta, G. Ricciardi, W. Lacarbonara, “Optimal design and seismic performance of nonlinear TMD with pinched hysteresis”, *2nd International Nonlinear Dynamic Conference* (NODYCON 2021), online, February 16-19, 2021
6. C. Nuti, A. Pelle, G. Quaranta, A. V. Bergami, B. Briseghella, D. Lavorato, G. Fiorentino, A. Rasulo, “Bridge pier corrosion in seismic areas: forecasting, future behavior and assessment”, *Capacity Assessment of Corroded Reinforced Concrete Structures* (CACRCS DAYS 2020), online, December 1-4, 2020
7. C. Demartino, G. Quaranta, F. Mollaioli, “Response of RC frames under pulse-like seismic ground motion: preliminary results”, *1st Eurasian Conference on OpenSees* (EOSD19), Hong Kong (P. R. China), June 20-21, 2019
8. G. Di Gangi, C. Demartino, G. Quaranta, G. Monti, “Parametric modeling of timber light-frame shear walls using OpenSees”, *1st Eurasian Conference on OpenSees* (EOSD19), Hong Kong (P. R. China), June 20-21, 2019
9. G. Quaranta, F. Mollaioli, “A variational approach for energy-based analysis of near-fault pulse-like seismic records”, *7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering* (COMPDYN 2019), Crete (Greece), June 24-26, 2019
10. C. Maruccio, G. Quaranta, W. Lacarbonara, “Nonlinear multiscale dynamics of flexible piezoelectric structures: the role of micromechanics and electrical variables”, *1st International Nonlinear Dynamic Conference* (NODYCON 2019), Rome (Italy), February 17-20, 2019
11. G. Quaranta, C. Maruccio, “Energy harvesting from ambient vibrations using piezoelectric polymeric materials: computational insights for structural monitoring applications”, *1st International Conference on Vibration and Energy Harvesting Application* (VEH 2018), Shenzhen (P. R. China), November 2-4, 2018

12. A. Kefal, C. Maruccio, G. Quaranta, P. Montegiglio and E. Oterkus, "Synchronization-based approach for parameters identification in linear and nonlinear energy harvesting systems dynamics", *28th International Workshop on Computational Mechanics of Materials* (IWCMM28), Glasgow (United Kingdom), September 10-12, 2018
13. F. Trentadue, G. Quaranta, "Limit analysis of masonry structures based on fictitious associative-type contact interface laws", *9th International Conference on Computational Methods* (ICCM 2018), Rome (Italy), August 6-10, 2018
14. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, "Probabilistic analysis and design of piezoelectric energy harvesting devices under modulated and filtered white Gaussian noise", *7th World Conference on Structural Control and Monitoring* (7WCSCM), Qingdao (P. R. China), July 22-25, 2018
15. G. Fiorentino, D. Lavorato, G. Quaranta, B. Briseghella, C. Nuti, "Dynamic monitoring and model updating of the Leaning Tower of Pisa", *7th World Conference on Structural Control and Monitoring* (7WCSCM), Qingdao (P. R. China), July 22-25, 2018
16. C. Demartino, C. Maruccio, G. Quaranta, "Energy harvesting from vertical pedestrian-induced vibrations of footbridges", *7th World Conference on Structural Control and Monitoring* (7WCSCM), Qingdao (P. R. China), July 22-25, 2018
17. G. Quaranta, C. Demartino, W. Yue, Y. Xiao, "Dynamic properties of a bamboo-steel spatial truss structure", *Global Bamboo and Rattan Congress 2018* (BARC 2018), Beijing (P. R. China), June 25-27, 2018
18. G. Fiorentino, D. Lavorato, G. Quaranta, A. Pagliaroli, G. Carlucci, G. Mylonakis, N. Squeglia, B. Briseghella, G. Monti, C. Nuti, "Leaning tower of Pisa: recent studies on dynamic response and soil-structure interaction", *16th European Conference on Earthquake Engineering* (16ECE), Thessaloniki (Greece), June 18-21, 2018
19. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, "Energy harvesting from electrospun piezoelectric nanofibers: analysis and design under non-stationary random vibrations", *5th Workshop in Devices, Materials and Structures for Energy Harvesting and Storage*, Dublin (Ireland), April 23-24, 2018
20. C. Maruccio, G. C. Marano, G. Quaranta, G. Grassi, "Nonlinear modeling of a piezoelectric fractional order system for energy harvesting applications", *5th Workshop in Devices, Materials and Structures for Energy Harvesting and Storage*, Dublin (Ireland), April 23-24, 2018
21. G. Fiorentino, D. Lavorato, G. Quaranta, C. Nuti, "Leaning Tower of Pisa: new results on dynamic response considering soil structure interaction", *5th International Workshop Dynamic Interaction of Soil and Structures – Dynamic interaction between Soil, Monuments and Built Environment* (DISS 2017), Rome (Italy), October 19-20, 2017
22. G. Quaranta, F. Trentadue, C. Maruccio, G. C. Marano, "Energy harvesting from earthquake for vibration-powered wireless sensors", *4th Conference on Smart Monitoring, Assessment and Rehabilitation of Structures* (SMAR 2017), Zürich (Switzerland), September 13-15, 2017
23. C. Maruccio, G. Quaranta, F. Trentadue, G. C. Marano, "Multi-scale and multi-uncertainty modeling of energy harvesters under environmental vibrations", *ECCOMAS Thematic Conference on Computational Modelling of Multi-Uncertainty and Multi-Scale Problems* (COMUS17), Porto (Portugal), September 12-14, 2017
24. G. Fiorentino, D. Lavorato, G. Quaranta, A. Pagliaroli, G. Carlucci, C. Nuti, F. Sabetta, G. Della Monica, M. Piersanti, G. Lanzo, G. C. Marano, G. Monti, N. Squeglia, R. Bartelletti, "Numerical and experimental analysis of the leaning Tower of Pisa under earthquake", *X International Conference on Structural Dynamics* (EURODYN 2017), Rome (Italy), September 10-13, 2017
25. C. Maruccio, G. Quaranta, G. Monti, L. De Lorenzis, "A FE² based approach for multiscale modeling and design of energy harvesting devices", *XXIII Conference of the Italian Association of Theoretical and Applied Mechanics* (AIMETA 2017), Salerno (Italy), September 4-7, 2017

26. A. Fiore, F. Mollaioli, G. Quaranta, G. C. Marano, “Nonlinear combination of intensity measures for response prediction of RC buildings”, *Proceedings of the 1st European Conference on OpenSees (EOSD 2017)*, Porto (Portugal), June 19-20, 2017
27. G. Quaranta, F. Mollaioli, “Accuracy of equivalent linear models for bilinear oscillators under pulse-like ground motion”, *6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017)*, Rhodes Island (Greece), June 15-17, 2017
28. A. Fiore, F. Mollaioli, G. Quaranta, G. C. Marano, “Finding correlations between engineering demand parameters and intensity measures through evolutionary polynomial regression”, *6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017)*, Rhodes Island (Greece), June 15-17, 2017
29. C. Maruccio, M. Scigliuzzo, S. Rizzato, G. Quaranta, G. Maruccio, “Computational and experimental analysis of surface acoustic wave propagation on piezoelectric GaAs layer”, *8th Conference on Smart Structures and Materials (SMART 2017)*, Madrid (Spain), June 5-8, 2017
30. C. Maruccio, G. Quaranta, L. De Lorenzis, G. Monti, “Piezoelectric polymeric nanowires for energy harvesting devices in wireless sensor networks of smart bridges”, *RISUD Annual International Symposium 2016 – Smart Cities (RAIS 2016)*, Hong Kong (P. R. China), August 23-24, 2016
31. G. Monti, F. Fumagalli, G. C. Marano, G. Quaranta, M. Sgroi, M. Tommasi, R. Rea, B. Nazario, “Wireless dynamic monitoring of the Colosseum in Rome”, *4th International Workshop Dynamic Interaction of Soil and Structures - Dynamic interaction between Soil, Monuments and Built Environment (DISS 2015)*, Rome (Italy), November 12-13, 2015
32. E. Nuti, G. Quaranta, G. Monti, “Experimental dynamic assessment of a cable-stayed bridge”, *3rd Conference on Smart Monitoring, Assessment and Rehabilitation of Structures (SMAR 2015)*, Antalya (Turkey), September 7-9, 2015
33. C. Maruccio, G. Quaranta, L. De Lorenzis, G. Monti, “Energy harvesting from electrospun piezoelectric nanowires for structural health monitoring of a cable-stayed bridge”, *4th International Symposium on Energy Challenges and Mechanics (ECM4)*, Aberdeen (United Kingdom), August 11-13, 2015
34. R. Bartelletti, G. Fiorentino, G. Lanzo, D. Lavorato, G. C. Marano, G. Monti, C. Nuti, G. Quaranta, N. Squeglia, “Behavior of the leaning tower of Pisa: Analysis of experimental data from structural dynamic monitoring”, *2nd International Symposium on Advances in Civil and Infrastructure Engineering (ACE 2015)*, Vietri sul Mare (Italy), June 12-13, 2015
35. R. Bartelletti, G. Fiorentino, G. Lanzo, D. Lavorato, G. C. Marano, G. Monti, C. Nuti, G. Quaranta, N. Squeglia, “Behavior of the leaning tower of Pisa: Insights on seismic input and soil-structure interaction”, *2nd International Symposium on Advances in Civil and Infrastructure Engineering (ACE 2015)*, Vietri sul Mare (Italy), June 12-13, 2015
36. A. Fiore, G. Quaranta, A. Abrescia, G. C. Marano, “Shear strength of concrete beams without stirrups: An evolutionary polynomial regression-based approach”, *1st International Conference on Engineering and Applied Sciences Optimization (OPT-i 2014)*, Kos Island (Greece), June 4-6, 2014
37. F. Mosti, G. Quaranta, W. Lacarbonara, “Numerical and experimental assessment of the modal curvature method for damage detection in plate structures”, *2nd International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2014)*, Agadir (Morocco), May 19-21, 2014
38. G. Monti, F. Fumagalli, G. C. Marano, G. Quaranta, R. Rea, B. Nazario, “Effects of ambient vibrations on heritage buildings: overview and wireless dynamic monitoring application”, *3rd International Workshop Dynamic Interaction of Soil and Structures - Dynamic interaction*

between Soil, Monuments and Built Environment (DISS 2013), Rome (Italy), December 12, 2013

39. G. Quaranta, S. K. Kunnath, N. Sukumar, “Problems and perspectives in implementing mesh-free methods for nonlinear analysis of RC structures using OpenSees”, *1st Italian OpenSees Days*, Rome (Italy), May 24-25, 2012
40. A. Scodreggio, G. Quaranta, G. C. Marano, R. Fleischman, G. Monti, “Optimum design of force-limiting self-centering anchorage systems: initial study and implemented methodology”, *1st Italian OpenSees Days*, Rome (Italy), May 24-25, 2012
41. G. Quaranta, B. Carboni, W. Lacarbonara, “On the reliability of a PCA-based method for structural diagnosis in bridge structures with environmental disturbances”, *1st International Conference on Structural Nonlinear Dynamics and Diagnosis* (CSNDD 2012), Marrakech (Morocco), April 30 - May 2, 2012
42. G. Quaranta, J. Avakian, G. C. Marano, G. Monti, “Numerical and experimental assessment of various non-classical methods for parametric identification of nonlinear viscous dampers”, *3rd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering* (COMPDYN 2011), Corfu (Greece), May 25-28, 2011
43. G. Quaranta, S. Chakraborty, G. C. Marano, “Robust design of tuned liquid column dampers under stochastic ground motion considering fuzzy uncertainties”, *3rd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering* (COMPDYN 2011), Corfu (Greece), May 25-28, 2011
44. G. C. Marano, G. Quaranta, S. Sgobba, Y. Tsompanakis, “Domination-based selection schemes for handling constraints in particle swarm optimization algorithms”, *IV European Conference on Computational Mechanics - Solids, Structures and Coupled Problems in Engineering* (ECCM 2010), Paris (France), May 16-21, 2010
45. G. Monti, G. Quaranta, G. C. Marano, “Robustness against the noise in sensors network design for heritage structures: the case study of the Colosseum”, *4th International Workshop on Reliable Engineering Computation* (REC 2010), Singapore, March 3-5, 2010
46. G. C. Marano, S. Sgobba, G. Quaranta, E. Morrone, G. Palombella, F. Trentadue, “Comparison on different approaches for robust optimum design of tuned mass dampers”, *8th World Congress on Computational Mechanics* (WCCM 2008), Venice (Italy), June 30-July 4, 2008

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