

## CONTACT INFORMATION

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Prof. Roberto CORRADI, PhD

Politecnico di Milano - Department of Mechanical Engineering

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## CURRENT ACADEMIC POSITION

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Full Professor of Applied Mechanics - since 05.02.2018

Department of Mechanical Engineering, Politecnico di Milano

Currently teaching *Mechanical System Dynamics* (MSc in Mechanical Engineering), *Noise and Vibration Engineering* (MSc in Mechanical Engineering, MSc in Automation and Control Engineering) and *Vibroacoustics* (MSc in Music and Acoustic Engineering).

Coordinator of PSVL (Polimi Sound and Vibration Laboratory), the reference interdepartmental research structure of Politecnico di Milano in the area of vibroacoustics, applied acoustics and sound processing.

Faculty member of the PhD Programme in Mechanical Engineering of Politecnico di Milano.

Member of the Board of the Department of Mechanical Engineering.

## PAST ACADEMIC POSITIONS

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Associate Professor of Applied Mechanics - from 01.03.2005 to 04.02.2018

Department of Mechanical Engineering, Politecnico di Milano

Assistant Professor of Applied Mechanics - from 01.09.2000 to 28.02.2005

Department of Mechanical Engineering, Politecnico di Milano

Research Fellow - from 01.01.1999 to 31.08.2000

Department of Mechanical Engineering, Politecnico di Milano

## EDUCATION

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PhD in Applied Mechanics, grade *ottimo*

Politecnico di Milano, February 2001

Thesis topic: flexible multibody modelling of rail vehicles for ride comfort analysis

Supervisor: Prof. Giorgio Diana

Degree *cum laude* in Mechanical Engineering (5 year combined Bachelor/Master's program)  
Politecnico di Milano, December 1995  
Thesis topic: tyre modelling for NVH assessment  
Supervisor: Prof. Federico Cheli

## MAIN RESEARCH INTERESTS

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- Rail vehicle dynamics and control (with special emphasis on ride comfort, running safety, active steering)
- Rail and road vehicle aerodynamics (cross wind induced loads and related limit safety conditions)
- Track dynamics, train-track dynamic interaction and runnability of railway bridges
- Condition monitoring of track quality and rail vehicle dynamics
- Railway noise
- Tyre noise
- Vibroacoustics of aircraft structures for interior noise mitigation
- Vibroacoustics of string musical instruments

The approach to the research topics listed above includes both theoretical/numerical modelling and lab/field experiments.

## RESEARCH PROJECTS

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### Public funding

Principal investigator for Politecnico di Milano in the following research projects:

- URBAN TRACK (Urban rail infrastructure), funded by the European Commission under the call FP6-2005-TRANSPORT-4. From 01.09.2006 to 31.08.2010.
- PMnIDEA (Predictive Maintenance employing Non-intrusive Inspection & Data Analysis), funded by the European Commission under the call FP7-SST-2008-RTD-1. From 01.06.2009 to 31.05.2012.
- SITRAM (Sistema Tranviario Innovativo), funded by the Italian Ministero dello Sviluppo Economico under the call "Sustainable Mobility", INDUSTRIA 2015. From 01.01.2009 to 30.06.2013.

### Private funding

Coordinator of the following research projects at the Department of Mechanical Engineering, funded by industrial companies and rail transport operators:

- Fazioli Pianoforti - from July 2008 to date  
Vibroacoustic analysis of grand pianos: experimental testing, FEM/BEM modelling, sound analysis
- ATM Azienda Trasporti Milanesi - from October 2008 to October 2009  
Testing procedure for resilient wheels
- Isolgomma - from October 2010 to June 2011  
Dynamic testing of embedded-rail track systems
- Eurolink - from February to May 2011  
Modelling and testing of the embedded-rail track system for the Messina Straits Bridge
- ATM Azienda Trasporti Milanesi - from April to December 2011  
Curve squeal in tramways: experimental campaign based on both trackside and onboard measurements

- Trenitalia - from October 2012 to December 2017  
Investigations on ride comfort and running dynamics of a high-speed train
- Pirelli Tyre - from June 2013 to date  
Tyre noise: innovative indoor measurement procedures, correlation with pass-by test, development of a tyre noise model to support product design
- Pirelli Tyre - from July 2014 to December 2015  
Tyre cavity noise: modelling and testing of tyre lining countermeasures
- AnsaldoBreda - from November 2014 to July 2015  
On-track tests to validate curve squeal mitigation performance of a prototype active-steering bogie
- ENI - from September 2016 to May 2017  
Innovative solutions for environmental noise mitigation in oil&gas plants
- Pirelli Tyre - from January 2018 to date  
Structure-borne tyre noise: modelling and testing
- ALSTOM Ferroviaria S.p.A. – from February 2018 to date  
Optimization of suspension components and floating floor as a means to improve ride comfort in high-speed trains

In addition to being in charge of the coordination of the research projects listed above, Roberto Corradi has taken part in other three EC funded projects: WEATHER (Wind Early Alarm System for Terrestrial Transport Handling Evaluation of Risks), call FP6-2002-SME-1, SPURT (Seamless Public Urban Rail Transport), call FP6-2002-TRANSPORT-1, IN2RAIL (Innovative Intelligent Rail), call H2020-MG-2014\_TwoStages. Moreover, he served as co-investigator in various other research projects of the Department of Mechanical Engineering in cooperation with industrial companies

Based on his research interests and specific engineering expertise, on behalf of Italcertifer he has been in charge of reviewing the final design of the rolling stock for M4, the new metro line under construction in Milano.

## **CURRENT TEACHING**

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*Mechanical System Dynamics* (course given in English) - 5 ECTS

MSc in Mechanical Engineering, Politecnico di Milano  
since A.Y. 2014-2015

*Noise and Vibration Engineering* (course given in English) - 6 ECTS

MSc in Mechanical Engineering and MSc in Automation and Control Engineering, Politecnico di Milano  
since A.Y. 2015-2016

*Vibroacoustics* (course given in English) - 5 ECTS

MSc in Music and Acoustic Engineering, Politecnico di Milano  
since A.Y. 2018-2019

## **PAST TEACHING**

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*Dynamics of Mechanical Systems* (course given in English) - 10 ECTS

MSc in Automation and Control Engineering, Politecnico di Milano  
4 years (A.Y. from 2010-2011 to 2013-2014)

*Controllo delle Vibrazioni e del Rumore* (course given in Italian) - 5 ECTS

MSc in Mechanical Engineering and MSc in Automation and Control Engineering, Politecnico di Milano  
10 years (A.Y. from 2005-2006 to 2014-2015)

*Control and Actuating Devices for Mechanical Systems* (course given in English) - 10 ECTS

MSc in Mechanical Engineering, Politecnico di Milano  
5 years (A.Y. from 2005-2006 to 2009-2010)

*Azionamenti e Controllo dei Sistemi Meccanici* (course given in Italian) - 10 ECTS

MSc in Mechanical Engineering, Politecnico di Milano  
2 years (A.Y. 2003-2004 and 2004-2005)

*Meccanica* (course given in Italian) - 5 ECTS

BSc and MSc in Computer Science and Engineering, Politecnico di Milano  
5 years (A.Y. from 2009-2010 to 2013-2014)

*Fondamenti di Meccanica Teorica e Applicata* (course given in Italian) - 5 ECTS

BSc in Mechanical Engineering, Politecnico di Milano  
1 year (A.Y. 2002-2003)

Before being in charge of the courses listed above, from A.Y. 1997-1998 to A.Y. 2003-2004 Roberto Corradi served as teaching assistant for different courses in the area of applied mechanics, dynamics and control of mechanical systems, vehicle dynamics.

## STUDENT ADVISING

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PhD Students - Supervisor

- Giacomo Squicciarini  
Thesis title: "Vibroacoustic investigation of a grand piano soundboard"  
PhD degree *cum laude* in Mechanical Engineering in March 2012
- Andrea Barbera  
Thesis title: "An active steering system for tramcar bogies"  
PhD degree in Mechanical Engineering in March 2013
- Antonio Acri  
Thesis title: "Numerical methodologies for noise & vibration sources assessment in powertrain applications"  
PhD degree in Mechanical Engineering in February 2018
- Simone Baro  
Thesis title: "Modelling and testing of trim panels for aircraft interior noise prediction"  
(started in November 2015 - in progress)
- Qianqian Li  
Thesis title: "Numerical and experimental investigation of complex train-track dynamic interaction phenomena"  
(started in November 2017 - in progress)

MSc Students - Supervisor

From 2005 to date, supervisor of more than 30 MSc theses.

## ACADEMIC RESPONSIBILITIES

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- From October 2011 to December 2012  
Member of the Council of the School of Information Engineering - Politecnico di Milano
- From March 2013 to date  
Member of the Board of the Department of Mechanical Engineering - Politecnico di Milano
- From February 2012 to date  
Member of the Board of the PhD Programme in Mechanical Engineering - Politecnico di Milano
- From November 2015 to date  
Faculty member of the PhD Programme in Mechanical Engineering - Politecnico di Milano
- From June 2015 to date  
Coordinator of PSVL (Polimi Sound and Vibration Laboratory), the reference interdepartmental research structure of Politecnico di Milano in the area of vibroacoustics, applied acoustics and sound processing.

## PUBLICATIONS

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### Articles

1. Ding, B., Squicciarini, G., Thompson, D.J., Corradi, R. An assessment of mode-coupling and falling-friction mechanisms in railway curve squeal through a simplified approach. (2018) *Journal of Sound and Vibration*, 423, pp. 126-140. DOI:10.1016/j.jsv.2018.02.048
2. Acri, A., Nijman, E., Klanner, M., Offner, G., Corradi, R. On the influence of cyclic variability on surface noise contribution analysis of internal combustion engines. (2018) *Applied Acoustics*, 132, pp. 97-108
3. Corradi, R., Miccoli, S., Squicciarini, G., Fazioli, P. Modal analysis of a grand piano soundboard at successive manufacturing stages. (2017) *Applied Acoustics*, 125, pp. 113-127. DOI: 10.1016/j.apacoust.2017.04.010
4. Squicciarini, G., Usberti, S., Thompson, D.J., Corradi, R., Barbera, A. Curve squeal in the presence of two wheel/rail contact points. (2015) *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, 126, pp. 603-610. DOI: 10.1007/978-3-662-44832-8\_71
5. Squicciarini, G., Thompson, D.J., Corradi, R. The effect of different combinations of boundary conditions on the average radiation efficiency of rectangular plates. (2014) *Journal of Sound and Vibration*, 333 (17), pp. 3931-3948. DOI: 10.1016/j.jsv.2014.04.022
6. Tomasini, G., Giappino, S., Corradi, R. Experimental investigation of the effects of embankment scenario on railway vehicle aerodynamic coefficients. (2014) *Journal of Wind Engineering and Industrial Aerodynamics*, 131, pp. 59-71. DOI: 10.1016/j.jweia.2014.05.004
7. Barbera, A.N., Bucca, G., Corradi, R., Facchinetti, A., Mapelli, F. Electronic differential for tramcar bogies: System development and performance evaluation by means of numerical simulation. (2014) *Vehicle System Dynamics*, 52 (SUPPL. 1), pp. 405-420. DOI: 10.1080/00423114.2014.901543
8. Cheli, F., Corradi, R., Tomasini, G. Crosswind action on rail vehicles: A methodology for the estimation of the characteristic wind curves. (2012) *Journal of Wind Engineering and Industrial Aerodynamics*, 104-106, pp. 248-255. DOI: 10.1016/j.jweia.2012.04.006
9. Cheli, F., Corradi, R. On rail vehicle vibrations induced by track unevenness: Analysis of the excitation mechanism. (2011) *Journal of Sound and Vibration*, 330 (15), pp. 3744-3765. DOI: 10.1016/j.jsv.2011.02.025
10. Cheli, F., Corradi, R., Sabbioni, E., Tomasini, G. Wind tunnel tests on heavy road vehicles: Cross wind induced loads-Part 1. (2011) *Journal of Wind Engineering and Industrial Aerodynamics*, 99 (10), pp. 1000-1010. DOI: 10.1016/j.jweia.2011.07.009
11. Cheli, F., Corradi, R., Rocchi, D., Tomasini, G., Maestrini, E. Wind tunnel tests on train scale models to investigate the effect of infrastructure scenario. (2010) *Journal of Wind Engineering and Industrial Aerodynamics*, 98 (6-7), pp. 353-362. DOI: 10.1016/j.jweia.2010.01.001
12. Braghin, F., Cheli, F., Corradi, R., Tomasini, G., Sabbioni, E. Active anti-rollover system for heavy-duty road vehicles. (2008) *Vehicle System Dynamics*, 46 (SUPPL.1), pp. 653-668. DOI: 10.1080/00423110802033064

13. Bocciolone, M., Cheli, F., Corradi, R., Muggiasca, S., Tomasini, G. Crosswind action on rail vehicles: Wind tunnel experimental analyses. (2008) *Journal of Wind Engineering and Industrial Aerodynamics*, 96 (5), pp. 584-610. DOI: 10.1016/j.jweia.2008.02.030
14. Cheli, F., Corradi, R., Diana, G., Facchinetti, A. Validation of a numerical model for the simulation of tramcar vehicle dynamics by means of comparison with experimental data. (2007) *Journal of Computational and Nonlinear Dynamics*, 2 (4), pp. 299-307. DOI: 10.1115/1.2754306
15. Cheli, F., Corradi, R., Diana, G., Facchinetti, A., Gherardi, F. Effect of track geometrical defects on running safety of tramcar vehicles. (2006) *Vehicle System Dynamics*, 44 (SUPPL. 1), pp. 302-312. DOI: 10.1080/00423110600871384
16. Cheli, F., Corradi, R., Diana, G., Tomasini, G. A numerical-experimental approach to evaluate the aerodynamic effects on rail vehicle dynamics. (2004) *Vehicle System Dynamics*, 41 (SUPPL.), pp. 707-716.
17. Belforte, P., Cheli, F., Corradi, R., Facchinetti, A. Software for the numerical simulation of tramcar vehicle dynamics. (2003) *Heavy Vehicle Systems - International Journal of Vehicle Design*, 10 (1-2), pp. 48-69.
18. Diana, G., Cheli, F., Collina, A., Corradi, R., Melzi, S. The development of a numerical model for railway vehicles comfort assessment through comparison with experimental measurements. (2002) *Vehicle System Dynamics*, 38 (3), pp. 165-183. DOI: 10.1076/vesd.38.3.165.8287

### Conference papers and other publications

1. Baro, S., Corradi, R., Parrinello, A., Ghiringhelli, G.L. Numerical and experimental assessment of the transmission loss of honeycomb sandwich panels. (2018) *Proceedings of INTER-NOISE 2018 - Impact of Noise Control Engineering*, Chicago, Illinois
2. Baro, S., Corradi, R. Investigation of structure-borne noise in plates supported by vibration isolators through a hybrid deterministic/SEA approach. (2018) *Proceedings of INTER-NOISE 2018 - Impact of Noise Control Engineering*, Chicago, Illinois
3. Bionda, S., Bocciolone, M., Collina, A., Corradi, R., Di Gialleonardo, E., Diana, G. Numerical and experimental analysis on the corrugation caused by a vehicle equipped with resilient wheels. (2017) *25th IAVSD International Symposium on Dynamics of Vehicles on Roads and Tracks*, Rockhampton, Australia, 14-18 August 2017.
4. Aciri, A., Offner, G., Resch, T., Nijman, E., Corradi, R. Dynamic substructuring for sources contributions analysis in internal combustion engines. (2016) *SAE Technical Papers*, 2016-June. DOI: 10.4271/2016-01-1761
5. Baro, S., Corradi, R., Åbom, M. Tyre cavity noise: Porous materials as a countermeasure. (2016) *Proceedings of the INTER-NOISE 2016 - 45th International Congress and Exposition on Noise Control Engineering: Towards a Quieter Future*, pp. 2313-2318.
6. Alfi, S., Baro, S., Corradi, R., Squicciarini, G., Thompson, D.J., Asplund, M. An investigation of the influence of wheel/rail contact conditions on curve squeal. (2016) *Proceedings of the INTER-NOISE 2016 - 45th International Congress and Exposition on Noise Control Engineering: Towards a Quieter Future*, pp. 6923-6930.
7. Corradi, R., Mazzola, L., Ripamonti, F. Optimisation of secondary suspension dampers to improve the ride comfort of high-speed rail vehicles. (2016) *ICSV 2016 - 23rd International Congress on Sound and Vibration: From Ancient to Modern Acoustics*
8. Corradi, R., Liberatore, A., Miccoli, S. Experimental modal analysis and finite element modelling of a contemporary violin. (2016) *ICSV 2016 - 23rd International Congress on Sound and Vibration: From Ancient to Modern Acoustics*
9. Aciri, A., Zsifkovits, P., Nijman, E., Offner, G., Corradi, R. Surface noise contributions analysis in wave based method framework for exterior radiation noise problems. (2016) *Proceedings of ISMA 2016 - International Conference on Noise and Vibration Engineering and USD2016 - International Conference on Uncertainty in Structural Dynamics*, pp. 1307-1318.
10. Diana, G., Bruni, S., Di Gialleonardo, E., Corradi, R., Facchinetti, A. A study of the factors affecting flange-climb derailment in railway vehicles. (2016) *Proceedings of the 3rd International Conference on Railway Technology: Research, Development and Maintenance (Railways 2016)*, Civil-Comp Press, Cagliari, Italy, 5-8 April 2016
11. Bionda, S., Bocciolone, M., Collina, A., Corradi, R., Di Gialleonardo, E. Rail corrugation growth on sharp curves negotiated by a vehicle equipped with resilient wheels. (2016) *Proceedings of the 10th International Conference on Railway Bogies and Running Gears*, Budapest, 12-15 September 2016
12. Bernasconi, A., Corradi, R., Galeazzi, R. Experimental determination of out of plane elastic shear modulus by three point bending test with varying span: application to composite laminates and particle wood panels. (2016) *ECCM 2016 - Proceedings of the 17th European Conference on Composite Materials*

13. Antonacci, F., Canclini, A., Corradi, R., Liberatore, A., Miccoli, S., Sarti, A., Zaroni, M. A multidisciplinary approach to the characterization of bowed string instruments: the Musical Acoustics Lab in Cremona. (2015) ICSV22 - The 22nd International Congress on Sound and Vibration, Florence, Italy, 12-16 July 2015
14. Corradi, R., Portentosio, M., Ripamonti, F., Fioravanti, A.P., Sabato, D. A methodology for tyre noise assessment based on indoor tests. (2015) ICSV22 - The 22nd International Congress on Sound and Vibration, Florence, Italy, 12-16 July 2015
15. Diana, G., Collina, A., Corradi, R. Design challenges of the runnability of long span bridges. (2015) IABSE Conference, Structural Engineering: Providing Solutions to Global Challenges, pp. 616-622. Geneva, Switzerland, 23-25 September 2015
16. Diana, G., Collina, A., Corradi, R. Design challenges related to long span bridges with railway traffic. (2015) Steel bridges: innovation & new challenges, Istanbul, Turkey, 14-16 September 2015
17. Acri, A., Offner, G., Nijman, E., Corradi, R. Numerical transfer path analysis for the assessment of air-borne noise in internal combustion engines. (2015) International Conference on Engineering Vibration, Ljubljana, Slovenia, 7-10 September 2015
18. Carnevale, M., Corradi, R. Development of a robust position detection system to be implemented on urban tramcars equipped with active steering bogies. (2014) Proceedings of the 14th Mini Conference on Vehicle System Dynamics, Identification and Anomalies, 2014-January, pp. 235-242.
19. Corradi, R., Mazzola, L., Ripamonti, F., Rosa, L. Influence of underbody suspended equipment on rail ride comfort. (2014) ASME 2014 12th Biennial Conference on Engineering Systems Design and Analysis, ESDA 2014. DOI: 10.1115/ESDA2014-20630
20. Diana, G., Bruni, S., Corradi, R., Di Gialleonardo, E. On the derailment of a railway vehicle. Influence of different parameters [Sullo svio di un veicolo ferroviario. Influenza dei vari parametri]. (2012) Ingegneria Ferroviaria, 67 (2), pp. 109-135.
21. Suda, Y., Lin, S.P., Sakamoto, M., Barbera, A. N., Corradi, R., Facchinetti, A. Design of an active steering system for a tramcar bogie by means of scale model experimental tests. (2012) Proceedings of the 13th Mini Conference on Vehicle System Dynamics, Identification and Anomalies, Budapest, Hungary, 5-7 November 2012
22. Corradi, R., Facchinetti, A., Sabbioni, E. Flexible-carbody multibody simulation for the analysis of ride comfort in rail vehicles. (2012) Proceedings of the 13th Mini Conference on Vehicle System Dynamics, Identification and Anomalies, Budapest, Hungary, 5-7 November 2012
23. Corradi, R., Diana, G., Facchinetti, A. Sharp curve negotiation analysis of tramcar vehicles with different bogie architectures. (2012) Proceedings of the First International Conference on Railway Technology: Research, Development and Maintenance. CIVIL-COMP PROCEEDINGS, Las Palmas de Gran Canaria, Spain, 18-20 April 2012. DOI:10.4203/ccp.98.129
24. Barbera, A.N., Corradi, R., Barilaro, P., Li, Z., Wacrenier, P.L. A track quality monitoring system designed to be installed on vehicles in normal operation. (2012) Proceedings of the First International Conference on Railway Technology: Research, Development and Maintenance. CIVIL-COMP PROCEEDINGS, Las Palmas de Gran Canaria, Spain, 18-20 April 2012. DOI:10.4203/ccp.98.43
25. Barbera, A.N., Corradi, R., Barilaro, P., Wacrenier, P.L. Continuous track quality monitoring in metro networks through vibration measurements taken on vehicles in standard operation. (2011) 8th International Conference on Condition Monitoring and Machinery Failure Prevention Technologies 2011, CM 2011/MFPT 2011, 1, pp. 574-585, Cardiff (UK), 20-22 June 2011
26. Corradi, R., Crosio, P., Manzoni, S., Squicciarini, G. Experimental investigation on squeal noise in tramway sharp curves. (2011) Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, pp. 3214-3221, Leuven, Belgium, 4-6 July 2011
27. Braghin, F., Collina, A., Corradi, R., Sabato, D. An integrated approach for the dynamic performance estimation of an embedded-rail track system. (2011) Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, pp. 828-833, Leuven, Belgium, 4-6 July 2011
28. Corradi, R., Fazioli, P., Miccoli, S., Squicciarini, G. Modal analysis and finite element modelling of a grand piano soundboard. (2011) Proceedings of the 8th International Conference on Structural Dynamics, EURODYN 2011, pp. 3176-3183, Leuven, Belgium, 4-6 July 2011
29. Barbera, A., Corradi, R., Facchinetti, A., Mazzola, L. Multibody simulation of urban rail vehicle dynamics for assessment of curved tracks. (2011) Multibody Dynamics 2011, ECCOMAS Thematic Conference. Brussels, Belgium, 4-7 July 2011
30. Cheli, F., Corradi, R., Tomasini, G. Numerical model of the admittance function for the evaluation of the aerodynamic loads on vehicles due to cross wind. (2011) ICWE - 13th International Conference on Wind Engineering, Amsterdam, The Netherlands, 10-15 July 2011

31. Diana, G., Bruni, S., Collina, A., Corradi, R., Alfi, S. Train bridge interaction: problems and models. (2010) Civil-Comp Proceedings, 93. 10th International Conference on Computational Structures Technology CST2010. Valencia, Spain, 14-17 September 2010
32. Corradi, R., Fazioli, P., Marforio, S., Paluello, A., Ripamonti, F., Squicciarini, G. Modal analysis of a grand piano soundboard. (2010) Proceedings of ISMA 2010 - International Conference on Noise and Vibration Engineering, pp. 59-72, Leuven, Belgium, 20-22 September 2010
33. Corradi, R., Fazioli, P., Miccoli, S., Ripamonti, F., Squicciarini, G. Experimental modal analysis and structural modelling of a grand piano soundboard to support instrument design. (2010) 10th International Conference on Recent Advances in Structural Dynamics (RASD2010). Southampton, UK, 12-14 July 2010
34. Barbera, A.N., Bruni, S., Corradi, R., Diana, G. Curving performance of a tramcar vehicle with bogie active-steering system. (2010) 1st Joint International Conference on Multibody System Dynamics. Lappeenranta, Finland, 25-27 May 2010
35. Diana, G., Corradi, R., Facchinetti, A., Gelli, S., Raiti, S. Dynamic simulation of the structural behaviour of aluminium carbodies for the analysis of ride comfort in rail vehicles. (2010) Workshop METRA - Le leghe leggere nell'industria dei trasporti ferroviari, Brescia, Italy, 28 May 2010
36. Diana, G., Cheli, F., Corradi, R., Facchinetti, A. Un modello multibody per l'analisi dinamica di veicoli urbani su rotaia. (2009) In: F. Cheli, E. Pennestrì. Cinematica e Dinamica dei Sistemi Multibody, vol. 2, pp. 74-101, Casa Editrice Ambrosiana
37. Alfi, S., Bruni, S., Cheli, F., Collina, A., Corradi, R., Diana, G., Facchinetti, A. Dinamica del veicolo ferroviario e sua interazione con l'infrastruttura. (2009) In: F. Cheli, E. Pennestrì. Cinematica e Dinamica dei Sistemi Multibody, vol. 2. pp. 36-38, Casa Editrice Ambrosiana
38. Beretta, S., Braghin, F., Cheli, F., Corradi, R., Resta, F. Analisi delle sollecitazioni dinamiche per sistemi multicorpo. (2009) In: F. Cheli, E. Pennestrì. Cinematica e Dinamica dei Sistemi Multibody, vol. 2, pp. 29-31, Casa Editrice Ambrosiana
39. Cheli, F., Corradi, R., Diana, G. Simulatori di guida. (2009) In: F. Cheli, E. Pennestrì. Cinematica e Dinamica dei Sistemi Multibody, vol. 2, pp. 41-43, Casa Editrice Ambrosiana
40. Bruni, S., Corradi, R., Mazzola, L. Wheel rail contact forces as input for optimal and robust axle design. (2009) 8th International Conference on Contact Mechanics and Wear of Rail/Wheel Systems (CM2009). Florence, Italy, 15-18 September 2009
41. Corradi, R., Facchinetti, A., Mazzola, L., Lipp, K., May, U. A methodology for estimating rolling contact fatigue damage in urban rail transport systems. (2009) 8th International Conference on Contact Mechanics and Wear of Rail/Wheel Systems (CM2009). Florence, Italy, 15-18 September 2009
42. Cheli, F., Corradi, R., Sabbioni, E., Tomasini, G. Wind tunnel tests on heavy road vehicles: cross wind induced loads. (2009) EUROMECH colloquium 509 Vehicle Aerodynamics - External Aerodynamics of Railway Vehicles, Berlin, Germany, 24-26 March 2009
43. Cheli, F., Corradi, R., Sabbioni, E., Tomasini, G., Tosi, A. Active control system to prevent heavy road vehicles from rollover induced by severe manoeuvres and cross wind. (2009) 21st International Symposium on Dynamics of Vehicles on Roads and Tracks (IAVSD'09), Stockholm, Sweden, 17-21 August 2009
44. Corradi, R., Marforio, S., Miccoli, S., Paluello, A., Ripamonti, F., Squicciarini, G. Finite element modelling of a grand piano soundboard. (2009) 20th Abaqus Regional User's Meeting, Milano, Italy, 17-19 November 2009
45. Corradi, R., Resta, F., Sabato, D., Tomasini, G. An algorithm for rail vehicle odometry based on one single angular velocity transducer. (2008) Proceedings of the 11th Mini Conference on Vehicle System Dynamics, Identification and Anomalies, pp. 321-329, Budapest, Hungary, 10-12 November 2008
46. Corradi, R., Leo, E., Sabbioni, E. A numerical model of a tractor three-point hitch control system. (2008) Proceedings of the 11th Mini Conference on Vehicle System Dynamics, Identification and Anomalies, pp. 499-506, Budapest, Hungary, 10-12 November 2008
47. Braghin, F., Bruni, S., Collina, A., Corradi, R. Numerical simulation of train-track interaction for the dynamic performance estimation of an innovative metro embedded-rail track system. (2008) 7th European Conference on Structural Dynamics, EURODDYN 2008, Southampton, UK, 7-9 July 2008
48. Braghin, F., Corradi, R., Resta, F., Tomasini, G. Numerical investigation on seismic response of actively controlled buildings. (2008) 7th European Conference on Structural Dynamics, EURODDYN 2008, Southampton, UK, 7-9 July 2008
49. Braghin, F., Corradi, R., Poretti, M. Multibody simulation and control of open kinematic chains with flexible bodies. (2008) 7th European Conference on Structural Dynamics, EURODDYN 2008, Southampton, UK, 7-9 July 2008



50. Cheli, F., Corradi, R., Rocchi, D., Tomasini, G., Maestrini E. Wind tunnel tests on train scale models to investigate the effect of infrastructure scenario. (2008) 6th International Colloquium on Bluff Bodies Aerodynamics & Applications (BBAA VI), Milano, Italy, 20-24 July 2008
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