UNIVERSITÀ DEGLI STUDI DELL'AQUILA
Prof. Massimiliano Bruner
Curriculum scientifico

(Aggiornato il 2022/10/28)

Year (From ? To): 2005 ? 2009 (time NOT SUBORDINATE to Italian Law 30.12.2010 Decree n. 240)
Job and position held: Research Fellow, Scientific Collaborator, Professional Employment
Main activities and responsibilities:
? DITS (SAPIENZA) research on mechanics and dynamics of rolling stock and railway superstructures (R esearch Grant in STA Working Group - Vibrations, RFI Working Group - Vibrations, RFI Working Group - 2002-2007 and 2008-2010 Switch) and finite element simulation.
? Research activities of DITS (SAPIENZA), at the "Magliana Nuova" plant of Met.Ro. S.p.A. on the subject of "wheel-rail interaction tests on the rolling stock of Line B" and comparison with multi-body theoretical models.
? DITS (SAPIENZA) research activity of Pre-Operam Environmental Monitoring - "Vibrations" component - ca rried out as part of the quadrupling of the PADUA-MESTRE High Capacity section by rail on behalf of the Experimental Institute of RFI: of 23 buildings located near the Padua-Mestre railway line or near the construction sites for the quadrupling of the same: identification of the individual events acquired (transits of railway trains or transits of road traffic), their processing at 1/3 of an octave and statistical analysis of the results; processing and generation of technical reports through an automatic management procedure of the acquired data
? Analysis and international research activity DICEA (SAPIENZA) of the quality indices of the track ge ometry and evaluation of the power density spectra of the irregularities of the route, as part of the research agreement stipulated with the Technical University of Catalonia (CENIT)
? Evaluation of the dynamic and vibrational characteristics of railway armaments within the framework of the ag reement stipulated between DICEA (SAPIENZA) and the Experimental Institute of RFI S.p.A.
? Participation in the DICEA (SAPIENZA) working group in the European project TRIOTrain (AEROTrain - DY NOTrain) Total Regulatory Acceptance for the Interoperable Network - Funded in the 7th Framework Program of the European Commission involved in WP6 (WP 6 aims at the final assessment of the tools previously developed and, at the same time, at ensuring the acceptance of the results of the project by European and national authorities. results and propositions and to undertake appropriate actions in terms of proposing new standards, consensus building and contacts to standardization bodies, NSA's and ERA)
? Participation in EURNEX - European Rail Research Network of Excellence
? DICEA Professional Assignment (SAPIENZA) for research on mechanics and dynamics of rolling stock and ra ilway superstructure, finite element analysis of the stresses induced by the transit of rolling stock on the rail.
? Teaching on "Safety Management" as part of the training course held by DICEA (SAPIENZA) for Trenitalia st aff: Analysis of railway accidents.
Name and address of the employer: "Sapienza University of Rome", Faculty of Engineering, DICEA (former Department of Hydraulics, Transport and Roads)

Business or sector type: Technical and Scientific Research and Development
Year (From ? To): 2012 ? 2018 (time SUBORDINATE to Italian Law 30.12.2010 Decree n. 240)
Job and position held: Research Fellow, Scientific Collaborator, Professional Employment
Main activities and responsibilities:
? DITS study (SAPIENZA) for virtual homologation of railway vehicles through the use of multi-body code si mulation (research grant, rolling stock dynamics).
? Support activities for university teaching DICEA (SAPIENZA) Course of "Vehicles and Transport Sy stems", prof. G. Malavasi
? Second Level SAPIENZA University Master's Lessons in Infrastructure and Railway Systems Engineering, mo dules "Via and Fixed Installations (VIF)" and "Dynamics of railway vehicles (STD)"
? Participation in the working group of DITS (SAPIENZA) for the validation of the executive and co nstruction design (for approval of the project by Roma Metropolitane srl) of the rolling stock for the new C line of the Rome Metro and in the preparation of periodic reports and final with the formulation of prescriptions for the project documents of the rolling stock and the ATC integral automation system for the functional technical verification in compliance with the applicable technical standards (in particular: EN 13749; EN 12663; EN 13979; EN 13103; EN 13104 relating to the structural safety of railway vehicles) and the special specifications.
? Research activity within the EU CARBODIN Research Project (2020-2021), Analysis of the vibrational and ac oustic effects in the vestibules of railway vehicles. Analysis of acoustic power by emission from structural solid sources belonging to the carriage of a railway vehicle.
Name and address of the employer: "Sapienza University of Rome", Faculty of Engineering, DICEA (former Department of Hydraulics, Transport and Roads)
Business or sector type: Technical and Scientific Research and Development
Year (From ? To): 2004 - 2005, 2006 - 2008
Job and position held: Consultant in Working Group for the Ministry of
Infrastructure and Transport, for National Railway Safety
Main activities and responsibilities:
? Review of the "Railway Safety Plans of the RU and the Infrastructure Manager";
? Analysis of the "Investigations of diversion on the Italian railway network, years 2000-2005";
? Analysis of the ?Penalties applicable for« non-compliance »with RUs and IMs?;
? Analysis and drafting of a "Draft for an Italian Railways Ordinance";
? Appointment of Expert on D.M. for "Ministerial Inquiry Commission, Roccasecca Railway Accident", 2005
? UNIFER 9th Sub-commission, for the ?Analysis of Innovative Technologies in the Railway sector?, presid ent Ing. L. Legnani.
? Analysis and drafting of the InterMinisterial Decree containing provisions on the methods of application of th e Ministerial Decree no. 388, in the field of first aid, in the railway sector, in implementation of article 45, paragraph 3, of the legislative decree 9 April 2008, n. 81.
Name and address of the employer: Directorate General of Rail Transport, Ministry of Infrastructure and Transport
Work or sector type: Scientific Technical Consultant with the qualification of "Expert Investigator" Ref. Number 007

Year (From ? To): 2009-2018
Job and level held: Consultant in Working Group for the Ministry of
Infrastructure and Transport, for National Railway Safety

Main activities and responsibilities:
? Assignment for the development, analysis and drafting of investigations and reports on railway accidents oc curring on the Italian Railway Network, year 2009
? Investigation assignment on convoy escape and diversion in Stz. Milano Centrale (Lombardy), year 2009;
? Investigation into a collision with an obstacle in the locality of Scala di Giocca (Sardinia) in 2009;
? Final analysis report on deviations that occurred on the RFI network in 2009
? Drafting of the "Presidium of Safety 2009"
? Investigation assignment on diversion in Stz. Napoli Centrale, year 2011
? Drafting of the "SPAD Survey Report", 2011
? Drafting of the "DDD Survey Report", 2011
? Investigation assignment for periculate in Borore (Macomer) Sardinia, year 2016
? Investigation for HS railway accident in FI-Castello (Tuscany), year 2018.
? Investigation for freight accident in the FE-Portomaggiore area (Emilia Romagna),year 2019.
Name and address of the employer: Directorate General for Railway and Maritime Investigations, Ministry of Infrastructure and Transport, General Manager Dr. Ing. F. Croccolo
Work or sector type: Scientific Technical Consultant with the qualification of "Expert Investigator" Ref. Number 007

Year (From ? To): Since 2006
Main activities and responsabilities:
? Head of the Quality Manual for "Railway Engineering (IF)", Body of the Italian College of Railway En gineers (CIFI)
? Reviwer of the Technical-Scientific Editorial Committee of "Railway Engineering (IF)"
? Technical-scientific drafting and revision of briefs to be published in ?Ingegneria Ferroviaria (IF)?; respon sible for the management of the related website Ingegneria Ferroviaria (IF) www.ingegneriaferroviaria.it/web).
Main activities and responsibilities:
? Drafting, correction and translation of the sections "News from the Interior" and "News from Abroad", in Ra ilway Engineering (IF);
? Technical-scientific and linguistic analysis and revision (translations into English) of papers published in the ?S cience and Technique? column of Railway Engineering (IF).
Name and address of the employer: Collegio degli Ingegneri Ferroviari Italiani, Viale Giolitti n°46, 00184 R oma, Segr. Gen. Ing. V. Giovine
Work or sector type: Scientific Technical Consultant
Education and training
Year (From ? To): 2002-2005
Skill awarded: PhD in Transportation Engineering
Main topics/professional: Thesis title: "Numerical model of railway superstructure and vehicle interaction"
Skills acquired: rating: Excellent
Name and type of organization education provider and training:"Sapienza University of Rome", Faculty of Engineering, DICEA (formerly Department of Hydraulics, Transport and Roads)
Level in classification national or international: degree Score: Excellent

Year (From ? To): 2002
Skill awarded: Degree in Mechanical Engineering (Structural Design)

Main topics/professional: Thesis title: ?Analysis of the running of a subway vehicle?
skills acquired: Development of dynamic simulation with MBS and FEM Codes Software
Name and type of organization education provider and training: ?Sapienza University of Rome?, Faculty of Engi neering, Department of Mechanics
Level in classification national or international: degree Score: 107/110

Year (From ? To): 2013
Skill awarded: Patran-Nastran FEM training: Advanced Dynamic Analysis with MSC Nastran
Main topics / professional skills acquired: Dynamics and advanced kinematics in FEM use in the Nastran environment. Attendance and certificate of successful completion of the course developed by MSC (teacher: Dr. Ing. M. Linari) in Rome, April 2013.
Name and type of organization, education provider and training: MSC Software Corporated Italy - Rome

Year (From ? To): 2017
Skill awarded: Training course for workers exposed to chemical risk
Main topics / professional skills acquired: Specific training course on safety pursuant to art. 37 of Legislative Decree 81/08 and subsequent amendments. and the State-Regions Agreement of 21 December 2011
Name and type of organization, education provider, and training: Sapienza University of Rome, Special Prevention and Protection Office, Prof. Ing. S. Cenedese
Level in classification national or international: Sector ATECO 85.42.00 (ATECO 2007)
Year (From ? To): 2020
Skill awarded: "The new EU regulation on privacy - In compliance with the provisions of EU Regulation 2016/679" - Certificate of completion of use and final course exam
Main topics / professional skills acquired: Main indications and procedures for the correct application of the rules contained in EU Regulation 679 of 2016
Name and type of organization, education provider, and training: CIFI - College of Italian Railway Engineers - Rome Headquarters
Level in classification, national or international:
Year (From ? To): 2020
Skill awarded: DITS - Responsible Course for Railway Safety Management (RSGS)
Main topics / professional skills acquired: Certificate of achievement for specialist in execution of Audits regarding the verification of regulatory execution of Regulation EU402 / 2013
Name and type of organization, education provider and training: DITS ? Polistudio srl
Level in classification national or international: DITS srl - Polistudio srl - Certificate of passing teacher exam: Dr. Ing. D. Biasco (Polistudio srl) May 28, 2020

Year (From ? To): 2021
Skill awarded: Actran training: acoustics and vibro-acoustics module, introduction to Virtual SEA and Time domain analysis
Main topics / professional skills acquired: Certificate of achievement for specialist in vibro-acoustic simulation and fluid-structure interaction using FEM Actran software in the frequency and time domain.
Name and type of organization, education provider and training: Hexagon - Free Field Technologies
Level in classification national or international: International Certificate of Achievement, Technical Certification; Prof. Dr. Ing. M. Cortese (Hexagon - Free Field Technologies) 28 maggio 2021
Personal skills

Mother-tongue: Italiano
Other(s) language(s)
Self Test Comprehension Spoken Written
EU Equivalent Level (*) Listening Reading Conversation Writing Conversation
English B1 Medium B1 Medium B1 Medium B1 Medium B1 Medium
German Learnig Learnig Learnig Learnig Learnig
(*)Common European Framework of Reference for Languages

Professional Job Reference
Year 2004: Founding member of D.I.T.S. srl (Development & Innovation in Transport Systems), Spin-Off "SAPIENZA" University of Rome (Headquarters in Rome, c / o "SAPIENZA", Faculty of Engineering, via Eudossiana 18), a company owned by "SAPIENZA" University of Rome, Ansaldo STS Hitachi Group and Hitachi Rail.
Organization skills
Year (From ? To): Since 2004
Skill awarded: Head of Structures and Vehicle Dynamics Area (Spin-Off SAPIENZA University of Rome, DITS, Development & Innovation In Transport System". Organization and management of work groups and drafting of technical reports, in study and research contracts stipulated with:
? Hitachi STS-Rail (Ex-Ansaldo STS (Naples) and Ansaldo STS (Genoa)), concerning the kinematic and dy namic modeling of the running of underground railway vehicles and the track by means of multi-body calculation codes (Simpack) and to the elements finite (Nastran-Ansys);
? Salcef, for analysis of the running dynamics of the Ryhiadh metro;
? Alstom for analysis of the running dynamics of the Cagliari tramway;
? Sotecni for analysis of the running dynamics of the Cagliari tramway.
Technical skills and capabilities
Year (From ? To): Since 2002
? Department of Machines, Prof. G. Santucci, Prof. G. Broeggiato, Chair of Machine Construction, " Sapienza Un iversity of Rome ", Faculty of Engineering (Didactic Preparation for PhD)
? "Study and analysis of the effects of the variability of the friction coefficient in wheel-rail contact, using mu ltibody calculation codes (Simpack-RAIL, Adams-RAIL)", Department of Hydraulics, Transport and Roads, Chair of Systems of Traction, Prof. GRCorazza, "Sapienza University of Rome", Faculty of Engineering (Preparation for PhD)
? "Study and analysis of the effects of the variability of the transverse profile of the railway wheel in contact wi th the rail, using multibody calculation codes (Simpack-RAIL, Adams-RAIL)", Department of Hydraulics, Transport and Roads, Chair of Traction Systems , Prof. GR Corazza, ?Sapienza University of Rome?, Faculty of E ngineering.
? "Study of the effects of the variability of the characteristic parameters of the structure of a railway su perstructure for the Rome Metro using mathematical applications", Department of Hydraulics, Transport and Roads, Chair of Traction Systems, Prof. GRCorazza, "Sapienza University of Rome ", Faculty of Engineering in collaboration with STA, Municipality of Rome.
? "Study of the effects of the variability of the characteristic parameters of the structure of a railway su perstructure in the context of the analysis of the wheel-rail interaction, using mathematical applications", Department of Hydraulics, Transport and Roads, Chair of Traction Systems, Prof. GRCorazza , ?Sapienza Un iversity of Rome?, Faculty of Engineering in collaboration with the Italian Railway Network - Ferrovie Dello St ato Group, Technical Direction, Experimental Institute.

? "Study of the effects of the variability of the characteristic parameters of the structure of a railway switch in th e context of the analysis of the wheel-rail interaction, using mathematical applications and analysis of finite element structures", Department of Hydraulics, Transport and Roads, Chair of Plants and Terminals, Prof. G. Malavasi, Prof. Accattatis, ?Sapienza University of Rome?, Faculty of Engineering in collaboration with the Ital ian Railway Network - Ferrovie Dello Stato Group, Technical Direction - Basic Technologies, Experimental Institute.

IT skills and capabilities

? Management and programming on applications for Windows-Based and MacOsx-Based operating systems
? Use of the MS OFFICE Professional package
? Dynamics and advanced kinematics in FEM use in the Patran-Nastran environment.
? Dynamics and advanced kinematics in the use of MBS simulation systems (Universal Mechanism, Simpack)
? 3D Technical Drawing (FreeCAD)
? Assistance in the design of applications using MATLAB, MATHEMATICA, MATHCAD 15, PYTHON
? Advanced vibrational and acoustic analysis with the aid of finite element codes (HEXAGON-MSC AC TRAN).

Professional and Educational Experiences

? Teaching aid as PhD Student (years from 2003 to 2005), as Research Fellow (years from 2007 to 2009, pe riod not subject to Law 12/30/2010 n. 240), as Research Fellow (years from 2012 to 2018, period subject to Law no.240 of 30.12.2010), as Expert Expert in the Matter (years from 2019 to 2021), carrying out lessons and exams in the context of the II level University Master in Infrastructure and Railway Systems Engineering (Innovation for Mobility Integrated), Module "VIA AND FIXED INSTALLATIONS", current didactic manager for SAPIENZA University of Rome, Prof. Eng. Luca Rizzetto and Module "TRACTION SYSTEMS AND VEHICLE DYNAMICS", current didactic manager for SAPIENZA University of Rome, Dr. Ing Riccardo V. Licciardello.
? Teaching aid as Research Fellow (years from 2012 to 2018, period not subject to Law 30.12.2010 n. 240) wi th lessons, assistance and exams in the context of the "Vehicles and Fixed Installations" course, didactic holder for SAPIENZA University of Rome, Prof. Ing. Gabriele Malavasi.
? Appointment of Expert of the Matter in 2020 to assist in the conduct of lessons, assistance and exams for the co urse referred to in point 2 and for the Technical and Economics of Transport course, didactic owner for SAPIENZA University of Rome, prof. Ing. Stefano Ricci
? For Spin-Off SAPIENZA "Development and Innovation in Transport System srl", the course "COURSE OF TE CHNOLOGIES AND MEASURING SYSTEMS OF VERTICAL LOADS AGENT ON THE TRACK DUE TO THE TRANSIT OF ROLLABLES", in lessons developed at the SAPIENZA headquarters "Palazzo Baleani" , period February 2017.
? Run for Spin-Off SAPIENZA "Development and Innovation in Transport System srl" the course "TYPES AN D MAINTENANCE OF RAILWAY ARMAMENT", in lessons developed at ForFer srl (Training Center recognized by the National Agency for Railway Safety - ANSF now ANSFISA pursuant to Legislative Decree No. 162/2007), November 2017 period.
? Conducted for Spin-Off SAPIENZA "Development and Innovation in Transport System srl" the course "B ASIC COURSE MANAGEMENT INFRASTRUCTURE CONNECTION BASE PROVINCE OF CREMONA SOGRAF srl", in lessons developed at the headquarters of the SOGRAF Maneuvering Railway Company, located in Cremona, period May 2019.

Other skills and competences

Year 2010-2011

? Help to the CTU Public Prosecutor's Office of Naples. Accident occurred on the "Circumvesuviana" Urban Ne twork, for the analysis of the running dynamics of the rolling stock.
? National Achimevent to the Engineer Professional Job: Achieved at ?Sapienza? University of Rome, grade 120/12 0. Enrolled in the Order of Engineers of the Province of Rome
? Driving license: Category B car driving license holder

Publication and Title production: Papers and Conference Proceedings
1) M. Bruner, G.R. Corazza, G. Malavasi
?Mitigazione delle vibrazioni dell?armamento ferroviario su massicciata - Vibrations mitigation of the track equi pment on ballast?, INGENERIA FERROVIARIA,Volume 75, Issue 12, December 2020, Pages 909-934, Ed izioni CIFI http://www.Ingegneriaferroviaria.it/web.
NOTE: Paper awarded with the 1st PRIZE as Best Article published in IF Ingegneria Ferroviaria, Science and Technology section, in the year 2020
2) F. Velletrani, R. Licciardello, M. Bruner
?Sale montate intelligenti per il treno del futuro: Il ruolo della misura in esercizio delle forze ruota-rotaia - In telligent wheelsets for the trains of the future: The role of in-service wheel-rail force measurement?, IN GEGNERIA fERROVIARIA, Volume 75, Issue 10, October 2020, Pages 701-725, Edizioni CIFI http://www.Ingegneriaferroviaria.it/web
NOTE: Paper awarded with the 2nd PRIZE as Best Article published in IF Ingegneria Ferroviaria, Science and Technology section, in the year 2020
3) D. Cortis, M. Bruner, G. Malavasi, ?Development of a wayside measurement system for the evaluation of wh eel-rail lateral contact force?, Measurement 159 (2020) 107786, www.elsevier.com/locate/measurement.
4) M.Bruner, G.R.Corazza, ?Note sullo sviluppo di un pensiero scientifico originale nelle ferrovie - La marcia in rettifilo e in curva. Notes on the development of an original scientific thought in the rail system - Running on a straight track and cornering?, INGEGNERIA FERROVIARIA, 09/2018 Edizioni CIFI ht tp://www.Ingegneriaferroviaria.it/web.
5) M. Bruner, F. Croccolo, F. De Marco, " Interferenza funzionale tra sistema ferroviario e stradale: il transito sui passaggi a livello", 5° CONVEGNO NAZIONALE SICUREZZA ED ESERCIZIO FERROVIARIO (SEF 2 017) Aracne Editrice
https://www.aracneeditrice.it
6) M. Bruner, D. Cortis, G. Malavasi, "Decoupling of wheel-rail lateral contact force from wayside measurements", art. N. 44, AIIT INTERNATIONAL CONGRESS ON TRANSPORT INFRASTRUCTURE AND SYSTEMS 04/2017 CRC Press/Balkema Taylor & Francis Group
http://www.balkema.nl
7) M. Bruner, M. Catena, D. Cortis, G. Malavasi, S. Rossi, "Estimation of the wheel-rail lateral contact force through the analysis of
the rail web bending strains", MEASUREMENT 12/2016 Elsevier
http://www.elsevier.com/locate/measurement
8) M. Bruner, R. Casale, G. R. Corazza, S. Ricci, "IF: 70 years of railway engineering!", INGEGNERIA FERROVIARIA 08/2016 Edizioni CIFI
http://www.cifi.it
9) M. Bruner, G. R. Corazza, M. V. Corazza, "Divagazioni sull'ingegnere ferroviario - Osservazioni e proposte", INGENERIA FERROVIARIA 08/2016 Edizioni CIFI
http://www.cifi.it
10) M. Bruner, F. Campagna, D. Cortis, Gi. Malavasi, S. Rossi, "Tecniche di misura sperimentali per la

determinazione delle forze laterali di contatto ruota-rotaia", 4° CONVEGNO NAZIONALE SICUREZZA ED E SERCIZIO FERROVIARIO 10/2015 Aracne Editrice
https://www.aracneeditrice.it
11) F. Accattatis, M. Bruner, F. Crisi, G. D'Ovidio, G. Valente, P. Vitali, "Railway vehicle dynamics and the soil vibration analysis", PROCEEDINGS OF THE 2ND INTERNATIONAL WORKSHOP DISS_12 06/2014 Aracne Editrice
http://www.aracneeditrice.it
12) M. Bruner, E. Carano, G. Malavasi, "The rail: a sensor for measurement of forces applied by the wheel", PROCEEDINGS OF THE SECOND INTERNATIONAL CONFERENCE ON RAILWAY TECHNOLOGY: RESEARCH, DEVELOPMENT AND MAINTENANCE 04/2014 Civil-Comp Press
http://www.civil-comp.com
13) M. Bruner, M. Cortese, M. Costa, R. Licciardello, P. Vitali, "Metodologia di analisi degli effetti delle caratteristiche costruttive dei rotabili sul contenuto armonico delle vibrazioni trasmesse all'infrastruttura", 3° C ONVEGNO NAZIONALE SICUREZZA ED ESERCIZIO FERROVIARIO 06/2013 Aracne Editrice
http://www.aracneeditrice.it
14) M. Bruner, G. R. Corazza, E. Cosciotti, "Cento e più anni di ricerche sullo svio. I deragliatori", I NGEGNERIA FERROVIARIA 06/2012 Edizioni CIFI
http://www.cifi.it
15) M. Bruner, E. Cosciotti, R. Licciardello, "Validation of rail vehicle simulations: importance of wheel-rail friction parameters", 22nd IAVSD SYMPOSIUM ON DYNAMICS OF VEHICLES ON ROADS AND TRACKS 08/2011 International Ass. for Vehicle System Dynamics
http://www.iavsd.org/events/
16) M. Bruner, M. F. Crisi, G. D'Ovidio, G. Valente, "Soil vibration analisys due to the rail bogie motion", INTERNATIONAL VIRTUAL JOURNAL, SCIENTIFIC TECHNICAL UNION OF MECHANICAL 03/2011 MTM INTERNATIONAL SCIENTIFIC JOURNAL
http://www.mech-ing.com
17) F. Accattatis, M. Bruner, E. Cosciotti, M. Leone, G. Malavasi, C. Malta, S. Musella, "Manovra di un deviatoio: sperimentazione ed analisi teorica", 2° CONVEGNO NAZIONALE SICUREZZA ED ESERCIZIO F ERROVIARIO 01/2011 Edizioni Ingegneria 2000
http://www.ingegneria2000.it
18) M. Bruner, G. R. Corazza, E. Cosciotti, "Lo svio. Cento e più anni di ricerche di un problema complesso. L a scuola tedesca", INGEGNERIA FERROVIARIA 12/2010 Edizioni CIFI
http://www.cifi.it
19) M. Bruner, G. R. Corazza, E. Cosciotti, "Lo svio. Cento e più anni di ricerche di un problema complesso. G li inizi e la scuola francese", INGEGNERIA FERROVIARIA 12/2009 Edizioni CIFI
http://www.cifi.it
20) M. Bruner, G. Malavasi, Gi. Malavasi, S. Musella, "Modello matematico di deviatoio ferroviario per lo studio del comportamento in condizioni di esercizio", 1° CONVEGNO NAZIONALE SICUREZZA ED E SERCIZIO FERROVIARIO 04/2009 Aracne Editrice
http://www.aracneeditrice.it
21) M. Bruner, L. Rizzetto, "Dynamic simulation of tramtrain vehicles on railway track", URBAN TRANSPORT 2008, 14TH INTERNATIONAL CONFERENCE ON URBAN TRANSPORT AND THE ENVRONMENTAL IN THE 21ST CENTURY 09/2008 WIT Press
http://www.witpress.com
22) M. Bruner, L. Rizzetto, "Simulazione della dinamica di marcia dei veicoli tram-treno", 3° CONVEGNO S

ISTEMA TRAM "TRAM...ANDARE" 06/2008 Edizioni CIFI
http://www.cifi.it
23) M. Bruner, G.R. Corazza, E. Cosciotti, Ga. Malavasi, Gi. Malavasi, R.V. Licciardello, R. Troisi, S. Musella, "Some experience on the dynamics of turnouts due to passing trains", WCRR 2008 (8TH WORLD CONGRESS RAILWAY RESEARCH) 05/2008 International Union of Railways (UIC)
http://www.railway-research.org/WCRR-Congresses-2001-2008
24) M. Bruner, "Pensarono e progettarono il Pendolino", INGEGNERIA FERROVIARIA 11/2007 Edizioni CIFI
http://www.cifi.it
25) M. Bruner, L. Rizzetto, "Dynamic simulation of wheel-rail interaction for tram and tram-train vehicles", 15TH INTERNATIONALE SYMPOSIUM EURNEX-ZEL2007 05/2007 EURNEX
http://www.eurnex.org/
26) M. Bruner, G.R. Corazza, E. Cosciotti, R. Licciardello, G. Malavasi, G. Broggiato, "A comparative study of the result of field tests carried out with different contact force measurement methods", WCRR 2006 (6TH WORLD CONGRESS RAILWAY RESEARCH) 06/2006 International Union of Railways (UIC)
http://railway-research.org/WCRR-Congresses-2001-2008
27) M. Bruner, E. Cosciotti, R. V. Licciardello, "Evaluation of the effect of flange lubrification on wheel-rail contact force", 14TH INTERNATIONALE SYMPOSIUM EURNEX-ZEL2006 05/2006 EURNEX
http://www.eurnex.org/
28) M. Bruner, A. Cioffi, G. R. Corazza, G. Karon, "Modelli analitici di armamento e loro impiego nello studio del degrado della via", INGEGNERIA FERROVIARIA 11/2005 Edizioni CIFI
http://www.cifi.it
29) M. Bruner, G. R. Corazza, E. Cosciotti, R. Licciardello, Gi. Malavasi, "Y and Q force measurement analysis and field tests of a new method", MODERNE SCHIENENFAHRZEUGE TAGUNG 09/2004 Technische Universität Graz
http://www.schienenfahrzeugtagung.at/en/
30) M. Bruner, G. R. Corazza, E. Cosciotti, R. Licciardello, Gi. Malavasi, "Y und Q Kraftmessung. Analyse und Felderfahrungen eines neuen Verfahrens", ZEVRAIL-GLASERS ANNALEN 06/2004 George Siemens Verlag GmbH & Co
http://www.zevrail.de
31) M. Bruner, E. Cosciotti, R. Licciardello, "On-board Measurement Of Wheel-Rail Contact Forces for Research Purposes", CONGRESS ISRA (INTERNATIONAL SEMINAR ON RAILWAY AXLES) 09/2003 Imperial College
http://imperial.ac.uk
32) M. Bruner, G. Broggiato, R. Licciardello, "Studio NUMERICO-SPERIMENTALE delle deformazioni di una sala ferroviaria di misura", XXXII CONGRESSO AIAS (ASSOCIAZIONE ITALIANA PER L'ANALISI DELLE SOLLECITAZIONI) 09/2003 ASS. ITALIANA PER L'ANALISI DELLE SOLLECITAZIONI
http://dma.ing.uniroma1.it/users/broggiato/WebPages/Abstracts/
33) M.Bruner, F.Croccolo, ??Hypothesis For Fault Dynamic Monitoring Evolution In Railway Systems??,Part C: Journal of Mechanical Engineering Science - Manuscript ID JMES-20-0322, Date of submission: 04-Mar-2020, https://doi.org/10.1177/0954406221990701, https://mc.manuscriptcentral.com/jmes. First Published April 7, 2021 Research Article,

Publication and Title production: Non-periodical publications, Manuals

1) F. Accattatis, M. Antognoli, A. Baldassarra, M. Bruner, A. Cappelli, E. Cosciotti, G. D'Ovidio, A. Libardo,

G. Malavasi, A. Tieri, "Ingegneria dei sistemi di trasporto Tecnologie, metodi ed applicazioni", COLLANA INGENERIA DEI TRASPORTI, 12/2013 EGAF Edizioni
https://www.egaf.it

Publication and Title production: Periodical publications, Columns in technical-scientific journals
1) "Notizie dall'Interno" ("Inside News") rubrica mensile di INGEGNERIA FERROVIARIA, M. Bruner dal 06/2006 Edizioni CIFI
http://www.cifi.it
2) ?Notizie dall?estero? ("News from Abroad") rubrica mensile di INGEGNERIA FERROVIARIA, M. Bruner dal 06/2006 Edizioni CIFI
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