

## PERSONAL INFORMATION

## Diogo Alarcão



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Sex Male | Date of birth 22/07/1970 | Nationality Portuguese

## POSITION Professor of Acoustics

## WORK EXPERIENCE

since January 2010

**Assistant Professor**

Bachelor course in Music Technologies (Sound Engineering)

Lisbon School of Music - Polytechnic Institute of Lisbon

*"Noise and acoustic insulation", "Acoustic Waves", "Musical Acoustics", "Fundamentals of Audio", "Audio Electronics I", "Room Acoustics", "Psychoacoustics", "Electroacoustics", "Musical Computer technology", "Signal Processing", Computer programming", "Maths"*

March 2012 – May 2018

**Principal Researcher**

Acoustics and Noise Control Group, CAPS – IST, University of Lisbon

R&D and consulting work in environmental acoustics, noise management and control, noise mapping and noise policies, architectural acoustics, and virtual acoustics

October 2007 – July 2014

**Assistant Professor**

Instituto Superior Técnico (IST) – University of Lisbon

- *"Noise Pollution"*, Master program in Environmental Engineering (2013 – 2014)
- *"Environmental Design II"*, Master program in Architecture (2013 – 2014)
- *"Experimental and computational acoustics"*, Advanced Training Diploma in Acoustics (2007 – 2012)

January 2000 – February 2012

**Assistant Researcher**

Acoustics and Noise Control Group, CAPS – IST, University of Lisbon

- R&D and consulting work in the areas of general acoustics, room acoustics, noise control, noise mapping and noise management

July 1997 – December 1999

**R&D Manager and Member of the Board**

ISD S.A. - Informação, Sistemas e Desenvolvimento S. A.

- Responsible for the overall executive management of the company and of the technical, administrative, and financial management of the European projects of the company.

January 1997 – June 1997

**Consultant**

ISD S.A. - Informação, Sistemas e Desenvolvimento S. A.

- Consulting in information systems architectures and new multimedia technologies. Conducting several tasks within R&D projects (national and European)

January 1995 – December 1996

**Research Assistant**

Acoustics and Noise Control Group, CAPS – IST, University of Lisbon

- Work in Computational Acoustics

EDUCATION AND TRAINING

- 1999 - 2005 **PhD in Electrical and Computer Engineering**  
 Instituto Superior Técnico (IST) – Technical University of Lisbon  
 ▪ Thesis: “Acoustic Modelling for Virtual Spaces”
- 1989 – 1996 **Engineering Physics**  
 Instituto Superior Técnico (IST) – Technical University of Lisbon
- 1988 – 1989 **Applied Mathematics and Computation**  
 Instituto Superior Técnico (IST) – Technical University of Lisbon
- 1976 – 1988 **Abitur**  
 German School of Lisbon
- 1973 – 1976 **Kindergarten**  
 Erlangen, Germany

PERSONAL SKILLS

Mother tongue(s) Portuguese

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	C2	C2	C2	C2	C2
French	C1	C1	B2	B2	B2
Spanish	B2	B2	B1	B1	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
 Common European Framework of Reference for Languages

Academic and Teaching Experience

- Main Examiner of the Master Thesis in Building Engineering of Fernanda Horst Andrade - “Acoustic Environment Evaluation of the refectories of the IPB – Santa Apolónia Campus”, Escola Superior de Tecnologia e de Gestão, Polytechnic Institute of Bragança, 4 December 2020
- Main Supervisor of the Master Thesis in Acoustical Engineering of João Pedro Sabino de Matos Rocha Santos – “Acoustic Evaluation of the Garrett Hall in the National Theatre D. Maria II in Lisbon”, Escuela Superior de Ingeniería, University of Cádiz, 19 November 2020
- Webinar Ibero-American Federation of Acoustics FIA 2020 “Computational simulation of the acoustics of enclosures”, 22 September 2020
- Assistant Professor of “Fundamentals of Audio” and “Audio Electronics I”, Bachelor course in Music Technologies, Lisbon School of Music - Lisbon Polytechnic Institute, since September 2017
- “3D Virtual Acoustics” – Summer School EuroRegio 2016, 13 – 15 June 2016, Porto, Portugal
- Main Supervisor of the Master Thesis in Environmental Engineering of João Nuno Esteves Calado Ribeiro – “Assessment of the CNOSSOS model for road traffic noise prediction”, Instituto Superior Técnico, University of Lisbon, 2015/2016
- Main Examiner of the Specialist Title in Acoustic Engineering of Joel Vera Cruz Preto Paulo, Polytechnic Institute of Lisbon, 20 May 2015
- Main Supervisor of the Master Thesis in Engineering Physics of Alberto Eduardo Artilheiro Ferreira –

- “Real time audio system for SNR improvement with applications to distant speech recognition”, Instituto Superior Técnico, University of Lisbon, 2013/2014
- Assistant Professor of “Acoustic Waves” and “Musical Acoustics”, Bachelor course in Music Technologies, Lisbon School of Music - Lisbon Polytechnic Institute, since September 2013
  - Assistant Professor of “Environmental Design II”, Bachelor program in Architecture, Instituto Superior Técnico – University of Lisbon, 2013/2014
  - Examiner of the Master Thesis in Environmental Engineering of Ricardo António Rodrigues - “Soundscapes in parks of Lisbon”, Instituto Superior Técnico, University of Lisbon, 6 July 2015
  - Main Examiner of the Master Thesis in Psychoacoustics of Mário André Leite Capitão da Silva Alves - “Noise cancelling headphones – possible audiometric applications”, Escola Superior de Tecnologias da Saúde de Coimbra, Polytechnic Institute of Coimbra, 11 June 2013
  - Assistant Professor of “Noise Pollution”, Master program in Environmental Engineering, Instituto Superior Técnico – University of Lisbon, 2012/2013; 2013/2014
  - “Performance Spaces: technical, scenic and architectural aspects – acoustics”, Culturgest course – Fundação da Caixa Geral de Depósitos, Lisbon, Portugal, 28 May 2012
  - Assistant Professor of “Noise and acoustic insulation”, Bachelor course in Music Technologies, Lisbon School of Music - Lisbon Polytechnic Institute, since September 2010
  - Assistant Professor of “Experimental and computational acoustics”, Advanced Training Diploma in Acoustics, Instituto Superior Técnico – Technical University of Lisbon, 2007/2008, 2008/2009, 2009/2010, 2010/2011 and 2011/2012
  - “Noise Maps of the Municipality of Funchal” – Training for the Municipality of the City of Funchal, Portugal, June 2011
  - Co-Supervisor of the Master Thesis in Physics Engineering of Ricardo Nepomuceno Pereira – “Experimental characterization of the acoustics of rooms”, Instituto Superior Técnico, Technical University of Lisbon, 29 December 2010
  - “Urban Noise and the Noise Map of Odivelas” – Training for the Municipality of the City of Odivelas, Portugal, June 2010
  - Co-Supervisor of the Master Thesis in Electrical and Computer Engineering of Filipa Rodrigues Lucas Amaro Gonçalves - “Auralization system for room acoustics”, Instituto Superior Técnico, Technical University of Lisbon, October 2009
  - “Urban Noise and Noise Mapping” – Training for the Municipality of the City of Funchal, Portugal, June 2009
  - Main Examiner of the Bachelor Thesis of Ricardo Nepomuceno Pereira – “Acoustic conditioning of buildings”, Faculdade de Ciências da Universidade de Lisboa, 17 de July de 2008
  - Co-Supervisor of the Master Thesis in Informatics Engineering of Tommaso Bianco – “A computer implementation of a room acoustics prediction method in C++”, Università degli Studi di Padova, March 2006
  - “Noise Mapping – Technical Requirements” – Training for EP - Estradas de Portugal, April 2004
  - “Learning LIMA” – Training for ADAI – Dept. of Mechanics – Faculdade de Ciências e Tecnologia da Universidade de Coimbra, Portugal, June 2003

#### Institutional Responsibilities

- Member of the Lisbon School of Music Pedagogic Council (Lisbon Polytechnic Institute) since January 2021.
- Coordinator of Sub-commission SC1 – “Psychoacoustics and Physical Acoustics” of the Technical Commission for Normalization CT28 “Acoustics, Vibration and Shock” since June 2019.
- Member of the Lisbon School of Music Representatives Council (Lisbon Polytechnic Institute) since February 2019.
- Member of the Expert Panel of the *European Green Leaf* of the European Commission – Indicator: Quality of Air and the Acoustic Environment, March 2015 – November 2018
- Member of the Expert Panel of the *European Green Capital Award* of the European Commission – Indicator: Quality of the Acoustic Environment, September 2013 – November 2018
- Co-coordinator of the Executive Commission of the *Specialisation in Acoustical Engineering of the Portuguese Engineers Association* (Ordem dos Engenheiros) – since 21 June 2013
- Periodic Reviewer for the *International Journal of Acoustics and Vibration (IJAV)*, since March 2013
- Periodic Reviewer for the *Noise Control Engineering Journal (NCEJ – INCE)*, since November 2011
- Member of the Executive Board of the *Portuguese Acoustical Society (SPA)*, since January 2007
- Member of Sub-commission SC1 – “Psychoacoustics and Physical Acoustics” of the Technical Commission for Normalization CT28 “Acoustics, Vibration and Shock” since September 2006.
- Head of the Technical Commission “Room Acoustics” of the *Portuguese Acoustical Society (SPA)* for the period 2005-2007

Scientific Congresses Responsibilities

- Member of the Local Organizing Committee of *EURONOISE 2021*, e-conference, 25 – 27 October 2021 (e-exhibition management).
- Member of the Local Organizing Committee of the Iberian congress *ACUSTICA 2020*, e-conference, 21 – 23 October 2020 (e-exhibition management).
- Member of the Scientific Committee of the Portuguese congress “*Simpósio de Acústica e Vibrações 2019*”, Coimbra, Portugal, 24 May 2019.
- Member of the Scientific Committee of the Iberian congress *ACUSTICA 2017 – “Simpósio de Acústica e Vibrações”*, Coimbra, Portugal, 3 February 2017.
- Member of the Local Organizing Committee and of the Scientific Committee of the international congress *EuroRegio 2016*, Porto, Portugal, 13 – 15 June 2016. Technical Exhibition management
- Member of the Scientific Committee of the Brazilian congress *XXV Encontro SOBRAC*, Campinas, Brazil, 20 – 22 October 2014
- Member of the Scientific Committee of the international congress *TECNIACÚSTICA2013*, Valladolid, 1 – 4 October 2013
- Chair of the session “*Environmental acoustics, noise and vibrations*”, *ACÚSTICA 2012*, Évora, Portugal, 1 – 3 October
- Member of the Local Organizing Committee and of the Scientific Committee of the international congress *ACÚSTICA 2012*, Évora, Portugal, 1 – 3 October 2012. Technical Exhibition management
- Member of the Local Organizing Committee of *INTER-NOISE 2010*, Lisbon, Portugal, 13-16 June 2010. Technical Exhibition management
- Chair of the session “*Room acoustics and musical acoustics*”, *TECNIACÚSTICA 2009*, Cádiz, Spain, September 2009
- Member of the Scientific Committee of the international congress *ACÚSTICA 2008*, Coimbra, Portugal, 20 - 22 October 2008.
- Member of the Local Organizing Committee and of the Scientific Committee of the *12th. International Congress on Sound and Vibration*, Lisbon, July 2005. Coordinator of the scientific program and of the registrations
- President of the structured session “*Modelling, Computational Acoustics and Auralization*”, *ACÚSTICA 2004*, Guimarães, Portugal, September 2004

Seminars

- Moderator of the panel “*Noise Pollution – It’s been too silent!*” – Environmental Engineering Day 2016, 15 February, Instituto Superior Técnico, University of Lisbon, Lisbon, Portugal
- Moderator of the panel “*Acoustics in the Outdoor Environment*” – XIX Congress of the Portuguese Engineers Association, 19 October 2012, Lisbon, Portugal
- Invited speaker on “*Room Acoustics*”, Technical Seminar at the University of Architecture (UAL) - 6 May 2009, Lisbon, Portugal
- Invited speaker on “*Acoustic Quality of Auditoria*”, Technical Seminar of the Portuguese Acoustical Society (SPA) - LNEC, 1 June 2007, Lisbon, Portugal
- Invited speaker on “*The Noise Map of the City of Almada*”, Technical Workshop “*Assessment and Management of Ambient Noise: The European Experience*”, 12 Nov. 2004, Almada, Portugal
- Invited speaker on “*Noise Cartography in Large Urban Areas*”, 1.º Workshop sobre Ruído – Mapas de Ruído e acústica de edifícios, Associação Portuguesa de Engenheiros do Ambiente (APEA), 16 October 2004, Loulé, Portugal
- Invited speaker on “*Noise in Cities*” – session “*Environment*”, 1.as Jornadas de Engenharia Acústica – “*A Engenharia Acústica em Portugal*” – *Portuguese Engineers Association* (Ordem dos Engenheiros), 19 March 2004, Lisbon, Portugal

Complementary Education

- “*Contribution of transactional analysis for better management*” – Move Consulting, Sept. 1997.
- “*Management of time and stress*” – Move Consulting, Dec. 1997.

Computer Skills

- Knowledge of: MS-Windows, MS-Office, Wolfram Mathematica, C++, Basic, AutoCad/ArcView, DTP, HTML (basic), Case.
- Experience in acoustical software: ODEON, CATT Acoustics, EASE, CADNAA, LIMA, SoundPlan, Mithra, Immi, Acoubat.

ADDITIONAL INFORMATION

Memberships

- *Portuguese Engineers Association* (Ordem dos Engenheiros) – since April 2003
- *Portuguese Acoustical Society* (SPA) – since January 2000

Main Projects done at Lisbon School of Music

- ACUSVMOTTA - “*Determination of the objective acoustic quality of the Vianna da Motta Auditorium of ESML*” – IDICA 2020 (IPL, 2020 – 2021).  
Duration: 12 months; Budget: 5.000 €

Tasks done: Responsible Researcher. The ACUSVMOTTA project aims determining the acoustic quality of the Vianna da Motta Auditorium of the ESML to be able to correlate the subjective acoustic impressions with the objective parameters to be obtained. The assessment will be done through monaural, binaural and beamforming measurements and through acoustical modelling in software.

Main Projects done at the Acoustics and Noise Control Group of CAPS-IST

- VIRTUSOUND - “*A platform for real time virtual acoustic reality*” – PTDC/EEA-ELC/80910/2006 (FCT, 2007 – 2010).  
Duration: 30 months; Budget: 52.000 €

Tasks done: Responsible Researcher. General coordination of the project. Orientation, supervision, and elaboration of R&D tasks. Software development for real time interior sound fields modelling and auralization through binaural technology. Prototype development and implementation. Tests and validation.

- EYEhEAR - “*Qualitative sound maps for visualization of the urban soundscapes*” – PTDC/AMB/73207/2006 (FCT, 2008 – 2011).  
Duration: 30 months; Budget: 148.000 €

Tasks done: Researcher at 25%. Development of a base methodology for drawing qualitative noise maps based on subjective psychoacoustics parameters, supported by the elaboration of predictive computational models of environmental noise. Quantitative and qualitative assessment of an urban area in Lisbon (Alcântara – 25 Abril Bridge) using sound recording and analysis equipment for road and rail traffic noise. Design of an automatic electroacoustic system with feedback for improvement of the existing soundscape.

- Assessment of the sound diffusion performance and of the sound absorption properties of wood diffusers in free-field conditions.
- Quantitative and qualitative assessment of the acoustics of classrooms of IST (Instituto Superior Técnico – Technical University of Lisbon). Instrumentation setup and experimental measurements.
- Development of new simulation algorithms and computer implementations for room acoustics prediction and auralization software.
- Room acoustics design of the auditorium Forum Lisboa – Municipality of Lisbon.
- Room acoustics design of the audience rooms of the new Oporto Courthouse.
- Room acoustics design of the exposition hall of FLUL – University of Lisbon.
- Guidelines for Good Classroom Acoustics – Portuguese Education Ministry.
- Noise Maps of the railway lines “*Linha do Norte*”, “*Linha de Cascais*”, “*Linha de Sintra*”, “*Linha do Minho*”, “*Linha de Cintura*”, “*Linha do Sul*”; Total Budget: 274.300 €

Tasks done: Project Manager. Railway traffic noise modelling and adaptation of the RMR96/SRMII Dutch model to the Portuguese rolling stock; Collection and classification of cartographic and traffic data. Specification and development of the acoustic models and of the corresponding noise maps. Gauging and experimental validation of the models. Final reports.

- Noise Reduction Plans for the railway lines “*Linha do Norte*” and “*Linha de Cascais*”; Total Budget: 119.700 €

Tasks done: Project Manager. Land use and noise exposure classification in the area around the railway lines. Scenarios simulation and outline of noise reduction measures. Redaction of the noise reduction plans containing preservation and noise reduction measures.

- Scientific and technical consulting to REFER (Portuguese railway infrastructures) – ambient noise strategies.
- Assessment on the performance of fixed railway lubricators for curve squealing mitigation.
- Noise and vibration assessment of the light railway (metro) of Almada (MST).
- Noise Maps of the Cities of Loures, Almada, Albufeira, Funchal and Odivelas (strategic and detailed format); Total Budget: 637.600 €

Tasks done: Project Manager. Collection and classification of cartographic, traffic and sound sources data. Specification and development of the acoustic models and of the corresponding noise maps. Gauging and experimental validation of the models. Final reports.

- Acoustic Zoning and Noise Action Plan for the Cities of Almada, Albufeira and Odivelas:  
Duration: 12 months; Total Budget: 221.420 €

Tasks done: Project Manager. Land use classification and elaboration of noise sensitivity maps for the whole municipalities’ areas. Drawing of acoustic zoning maps and redaction of the noise management

and action plans containing management, preservation, and noise reduction measures.

- Environmental impact assessment (EIA) of the new Hospital of Cascais.
- Environmental impact assessment (EIA) of the new Lisbon-Madrid high speed railway line.
- Elaboration of noise maps of major Portuguese federal roads.
- Specification and elaboration of the simulation model for the noise map of the Lisbon International Airport (present and future situations).

Main Projects done at ISD S. A.

- ANAFACT – “*Analysis and measurability of human and environmental factors in the total quality management approach*” (EU Project ESPRIT 4)  
7 European partners; Total budget: 3.823.500 €; ISD Budget: 504.750 €  
Tasks done: Project coordinator; Development, elaboration, classification and analysis of “self-assessment” and clients’ questionnaires. Elaboration of “workpackage deliverables”.
- MAGIC – “*Measuring and accounting Intellectual Capital*” (EU Project ESPRIT 4):  
6 European partners; Total budget: 2.600.000 €; ISD budget: 413.000 €  
Tasks done: Project manager; R&D connected with the integration of the proposed solution in the organizational model and ICT systems of ICL Computers Ltd. Tests and validation of the methodology. Elaboration of “workpackage deliverables”.
- CSCCM – “*Computer supported co-cooperative construction management*” (EU Project ESPRIT 4):  
6 European partners; Total budget: 1.890.000 €; ISD budget: 271.000 €  
Tasks done: Project manager; R&D related with the generalization of the pilot application and with the on the job training module. Elaboration of “workpackage deliverables”.
- RISKDRIVER – “*Risk driven software management*” (EU Project ESPRIT 4):  
7 European partners. Total budget: 686.530 €; ISD budget: 95.900 €  
Tasks done: Project manager; Software development’s specification and supervision (website and CD for on the job training). Elaboration of “workpackage deliverables”.
- GEBALIS E.P.: Analysis, specification and architecture of the central and distributed ICT system.  
Budget: 505.000 €  
Tasks done: Consultant; Functional and organic analysis of the firm and of its different departments. Specification and architecture of the ICT system. Tests and validation of the software
- MBA Toolbox – “*Management Business Administration Toolbox*” (EU Project ESPRIT 4):  
8 European partners. Total budget: 800.000 €; ISD budget: 100.000 €  
Tasks done: Software development’s specification and supervision.
- FTM Net – “*CIMPLE Fast Track Modelling Support Center Network*” (EU Project INNOVATION 4)
- RADATT – “*Rapid Damage Assessment Telematic Tool*” (EU Project TELEMATICS APPLICATION):  
7 European partners.

Publications

- “*Technical Assessment Synopsis Report - European Green Capital Award 2020*”, Editor: RPS Ireland, April 2018 – D. Alarcão: “*Noise*”
- “*Technical Assessment Synopsis Report - European Green Leaf 2019*”, Editor: RPS Ireland, April 2018 – D. Alarcão: “*Air Quality and Noise*”
- “*Technical Assessment Synopsis Report - European Green Capital Award 2019*”, Editor: RPS Ireland, April 2017 – D. Alarcão: “*Quality of the Acoustic Environment*”
- “*Technical Assessment Synopsis Report - European Green Leaf 2018*”, Editor: RPS Ireland, April 2017 – D. Alarcão: “*Quality of Air and the Acoustic Environment*”
- “*Technical Assessment Synopsis Report - European Green Capital Award 2018*”, Editor: Praxis Belgium, April 2016 – D. Alarcão: “*Quality of the Acoustic Environment*”
- “*Good Practice Report - European Green Capital Award 2018*”, Editor: European Union, April 2016 – D. Alarcão: “*Quality of the Acoustic Environment*”, ISBN 978-92-79-59129-7
- “*Technical Assessment Synopsis Report - European Green Leaf 2017*”, Editor: Praxis Belgium, April 2016 – D. Alarcão: “*Quality of Air & the Acoustic Environment*”
- “*Good Practice Report - European Green Leaf 2017*”, Editor: European Union, April 2016 – D. Alarcão: “*Air Quality and Acoustic Environment*”, ISBN 978-92-79-59131-0
- “*Technical Assessment Synopsis Report - European Green Leaf 2015*”, Editor: RPS Ireland, May 2015 – D. Alarcão: “*Quality of Air & the Acoustic Environment*”
- “*Good Practice Report - European Green Leaf 2015*”, Editor: RPS Ireland (Louise Connolly and

- Serena Byrne), May 2015 – D. Alarcão: “*Quality of Air & the Acoustic Environment*”
- “*Technical Assessment Synopsis Report - European Green Capital Award 2017*”, Editor: RPS Ireland, April 2015 – D. Alarcão: “*Quality of the Acoustic Environment*”
  - “*Urban Environment Good Practice and Benchmarking Report - European Green Capital Award 2017*”, Editor: RPS Ireland (Ashley O’Toole, Brenda McEvoy, & Louise Campion), April 2015 – D. Alarcão: “*Quality of the Acoustic Environment*”
  - “*Technical Assessment Synopsis Report - European Green Capital Award 2016*”, Editor: RPS Ireland, April 2014 – D. Alarcão: “*Quality of the Acoustic Environment*”
  - “*Urban Environment Good Practice and Benchmarking Report - European Green Capital Award 2016*”, Editor: RPS Ireland (Brenda McEvoy, Louise Connolly & Angela Treanor), April 2014 – D. Alarcão: “*Quality of the Acoustic Environment*”
  - D. Alarcão - “*Acoustic Modelling for Virtual Spaces*”, PhD Thesis, Instituto Superior Técnico – Technical University of Lisbon, November 2005
  - “*Proceedings of the Twelfth International Congress on Sound and Vibration (ICSV12 Lisbon)*”, Editors: J. L. Bento Coelho and D. Alarcão; Publishers: IIAV – International Institute of Acoustics and Vibration, July 2005
  - “*Efficient bid preparation in the construction industry – how to win more bids with less effort*”, CSCCM – Computer Supported Co-operative Construction Management, Best Practice Report, ESPRIT Project 22828. Editor: F. Weber. Bremer Schriften zu Betriebstechnik und Arbeitswissenschaft, Band 26, 1999

## Publications in International Scientific Journals

- D. Alarcão, O. Inácio – “Determination of room acoustics parameters using spherical beamforming - example of Lisbon’s Garrett Hall”, *Applied Acoustics* (submitted 2021).
- D. Alarcão, J. Ribeiro – “Assessment of the CNOSSOS-EU model for road traffic noise prediction”, *Applied Acoustics* (submitted 2020).
- Jurian V. Meijering, Hilde Tobi, Kristine Kern – “Defining and measuring urban sustainability in Europe: A Delphi study on identifying its most relevant components”, *Ecological Indicators*, Vol. 90 2018, pages 38-46. Expert participation.
- D. Alarcão – “*A theoretical model for the sound energy inside enclosures*”, *ACUSTICA* united with *Acta Acustica*, submitted (2019).
- Alberto E. A. Ferreira, Diogo Alarcão – “*Real-time blind source separation system with applications to distant speech recognition*”, *Applied Acoustics*, Volume 113, 1 December 2016, pages 170–184
- D. Alarcão, J. L. Bento Coelho – “*An experimental assessment on the performance of fixed rail lubricators for curve squealing noise mitigation*”, *Noise Control Engineering Journal* Vol. 61 (6) Nov/Dec. 2013, pages 567 – 577
- D. Alarcão, J. L. Bento Coelho – “*Lambertian enclosures – a first step towards fast room acoustics simulation*”, *Journal of Building Acoustics* Vol. 10 (1) 2003, pages 33-54
- J. L. Bento Coelho, D. Alarcão, A. M. Almeida, T. Abreu, N. Fonseca - “*Room acoustics design by a sound energy transition approach*”, *ACUSTICA/Acta Acustica* Vol. 86 (6) 2000, pages 903-911

## Publications in International Scientific Conferences

- D. Alarcão, P. Bello, O. Inácio – “On the Acoustics of the Vianna da Motta Auditorium in Lisbon”, *Euronoise 2021*, 25-27 October 2021 (e-congress)
- J. Santos, D. Alarcão, O. Inácio – “1D and 3D acoustic assessment of the Garrett Hall of the National Theatre D. Maria II in Lisbon”, *I3DA 2021 International Conference Immersive and 3D Audio: from Architecture to Automotive*, 8 – 10 September 2021 (e-congress)
- D. Alarcão, J. Santos, O. Inácio – “Acoustic assessment of the Garrett Hall of the National Theatre D. Maria II in Lisbon”, *Acustica 2020*, October 2020 (e-congress)
- J. L. Bento Coelho, D. Alarcão – “*On noise mapping and action plans in Portugal*”, 23<sup>rd</sup> International Congress on Sound and Vibration, Athens, Greece, July 2016
- D. Alarcão, C. Fafaiol, J. L. Bento Coelho – “*On the free field determination of the sound absorption of highly diffusing surfaces*”, *Forum Acusticum 2014*, Krakow, Poland, September 2014
- J. L. Bento Coelho, D. Alarcão – “*Urban sound management in the City of Almada, Portugal*”, *Forum Acusticum 2014*, Krakow, Poland, September 2014
- J. L. Bento Coelho, D. Alarcão – “*Noise maps for environmental sound management and planning*”, *TECNIACUSTICA 2013*, Valladolid, Spain, October 2013
- J. L. Bento Coelho, D. Alarcão – “*On smart urban sound management*”, *TECNIACUSTICA 2013*, Valladolid, Spain, October 2013
- D. Alarcão, C. Fafaiol, J. L. Bento Coelho – “*Avaliação comparativa da difusão sonora de painéis difusores de madeira*”, Invited Paper, *TECNIACUSTICA 2013*, Valladolid, Spain, October 2013
- J. L. Bento Coelho, D. Alarcão – “*Experience on noise mapping and action plans in Portugal*”, *Internoise 2013*, Innsbruck, Austria, September 2013

- D. Alarcão, J. L. Bento Coelho, C. Fafaiol – “Assessing the scattering uniformity of three full scale diffusers”, Internoise 2013, Innsbruck, Austria, September 2013
- D. Alarcão, J. L. Bento Coelho, C. Fafaiol – “On the characterization of the diffusion performance of wood diffusers”, 20.th International Congress on Sound and Vibration, Bangkok, Thailand, July 2013
- J. L. Bento Coelho, D. Alarcão – “Urban noise management in the city of Almada, Portugal”, 20.th International Congress on Sound and Vibration, Bangkok, Thailand, July 2013
- D. Alarcão, J. L. Bento Coelho – “Avaliação da qualidade das simulações e auralizações da plataforma VIRTUSOUND”, ACÚSTICA 2012, Évora, Portugal, October 2012
- D. Alarcão, J. L. Bento Coelho – “An assessment of the simulation and auralization quality of the Virtusound platform”, J. Acoust. Soc. Am. Volume 131, Issue 4, pp. 3256-3256 (2012), The ACOUSTICS 2012 Hong Kong Conference and Exhibition, Hong Kong, China, May 2012
- J. L. Bento Coelho, D. Alarcão – “Noise action plans in urban and suburban areas – a railway experience in Lisbon”, 18.th Intern Congress on Sound and Vibration, Rio de Janeiro, Brazil, July 2011
- Mohammed Boubezari, Enrico Carnuccio, Diogo Alarcão, J. L. Bento Coelho- “Predictive Soundscape Mapping”, Forum Acusticum 2011, Aalborg, Denmark, June 2011
- D. Alarcão, D. Santos and J. L. Bento Coelho – “The Virtusound Platform”, Invited Paper, Forum Acusticum 2011, Aalborg, Denmark, June 2011
- Filipa Gonçalves, Diogo Alarcão, J. L. Bento Coelho; “An auralization procedure for a virtual room acoustics system”, Invited Paper, 1st. Euroregio 2010 Congress on Sound and Vibration, Ljubljana, Slovenia, September 2010
- D. Alarcão, D. Santos, J. L. Bento Coelho – “Virtusound – a real time room acoustics simulation and auralization system”, Invited Paper, 1st. Euroregio 2010 Congress on Sound and Vibration, Ljubljana, Slovenia, September 2010
- D. Alarcão, D. Santos, J. L. Bento Coelho – “Virtusound – a real time auralization system”, ICA 2010, Sydney, Australia, August 2010
- D. Alarcão, J. L. Bento Coelho, M. M. Neves, S. Gerges – “Experimental Assessment of Curve Squealing Noise”, 17.th International Congress on Sound and Vibration, Cairo, Egypt, July 2010
- D. Alarcão, J. L. Bento Coelho – “An experimental assessment on the performance of fixed rail lubricators for curve squealing noise mitigation”, Internoise 2010, Lisbon, Portugal, June 2010
- D. Alarcão, D. Santos, J. L. Bento Coelho – “Virtusound – a real time auralization system”, Internoise 2010, Lisbon, Portugal, June 2010
- D. Alarcão, D. Santos, J. L. Bento Coelho – “Sistema de Simulação e Auralização em Tempo Real da Acústica de Salas”, XXIII Encontro da SOBRAC, Salvador da Bahia, Brazil, May 2010
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