

CURRICULUM VITAE

PERSONAL DETAILS

Name	Andreu Balastegui Manso
Date of birth	8th of May, 1976
Address	Colom 11, 08222 Terrassa Building TR45, Office 2.10
Phone	0034 93 7398258
E-mail	andreu.balastegui@upc.edu
Web page	http://www.andreubalastegui.com

EDUCATION

2006	PhD in Astrophysics, <i>Universitat de Barcelona</i> . Thesis: 'A new classification of gamma-ray bursts and its cosmological implications'.
2001	Master degree in Astrophysics, <i>Universitat de Barcelona</i> . Thesis: 'Empirical studies of the cosmic distribution of gamma-ray bursts' and 'Statistical modelization of cosmological gamma-ray bursts'.
2000	Master in e-business, <i>Institut Català de Tecnologia</i> .
1999	Bachelor degree in Physics, <i>Universitat de Barcelona</i> .

LANGUAGE KNOWLEDGE

Spanish	Native language
Catalan	Native language
English	Advanced level
Japanese	Basic level

COMPUTER EXPERIENCE

Operating systems	Windows, Linux, OSX.
Languages	FORTRAN, JAVA, Objective C, C#.
Others	MATLAB, Unity.

WORKING EXPERIENCE

- 09/2015 - Associate Professor at *Universitat Politècnica de Catalunya*.
- 09/2011 - 08/2015 Lecturer at *Universitat Politècnica de Catalunya*.
- 09/2007 - 08/2011 Assistant Professor at *Universitat Politècnica de Catalunya*.
- 03/2007 - 08/2007 Part time Professor at *Universitat Politècnica de Catalunya*.
- 09/2006 - 03/2007 JAVA programmer at *Tenea Tecnològias*.
Programming an enterprise social network with chat, search engine, online document editor and file sharing.
- 05/2006 - 09/2006 Statistician at *APPLUS*.
Computing revenues of slot machines.
- 02/2001 - 05/2006 Research and teaching fellowship at Astronomy Department of *Universitat de Barcelona*.
- 10/2000 - 01/2001 JAVA programmer at *Gedas S.A.*.
Programming a parser for xml documents that was part of a message interchange system for the port of Barcelona.
- 05/1999 - 09/2000 Quality control laboratory technician at *Miquel y Costas & Miquel S.A.*
- 1995 - 1998 9 months as stand-in for quality control laboratory technician at *Miquel y Costas & Miquel S.A.*

TEACHING EXPERIENCE

- 2014- 'Acoustics'. Master's Degree in Space and Aeronautical Engineering and Master's Degree in Industrial Engineering at *Universitat Politècnica de Catalunya*.
- 2007- 'Mechanics'. Different courses for Aeronautical Engineering, Industrial Engineering, Mechanical Engineering, Electronical Engineering and Electrical Engineering degrees at *Universitat Politècnica de Catalunya*.
- 2004-2005 'Observational Astronomy' and 'Astronomy'. Faculty of Physics. *Universitat de Barcelona*.
- 2001-2004 'Computer programming of numerical methods' and 'Geodesy'. Faculty of Physics. *Universitat de Barcelona*.
- 2002-2003 'Statistics' for undergraduate computer engineering students.

VISITING POSITIONS

- Feb/Mar 2004 'Osservatorio Astronomico di Padova'. Supernovae research group of Dr. Massimo Turatto, under supervision of Dr. Stefano Benetti.
-

REFEREED PUBLICATIONS

- 'Statistical requirements for noise mapping based on mobile measurements using bikes', G. Quintero, P. Aumond, A. Can, A. Balastegui & J. Romeu, *Applied Acoustics*, 156, 271-278 (2019).
 - 'A low-cost noise measurement device for noise mapping based on mobile sampling', G. Quintero, A. Balastegui & J. Romeu, *Measurement*, 148, 106894 (2019).
 - 'Temporal and spatial stratification for the estimation of nocturnal long-term noise levels', G. Quintero, J. Romeu, & A. Balastegui, *Environmental Pollution*, 245, 666-674 (2019).
 - 'Annual traffic noise levels estimation based on temporal stratification', G. Quintero, A. Balastegui & J. Romeu, *Journal of Environmental Management*, 206, 1-9 (2018).
 - 'Optimization of the active control of turboprop cabin noise', J. Romeu, J. Palacios, A. Balastegui & T. Pàmies, *Journal of aircraft*, 52, 1386-1393 (2015).
 - 'Optimal acoustic error sensing for global active control in a harmonically excited enclosure', J. Romeu, A. Balastegui, T. Pàmies & R. Arcos, *Acoustical Physics*, 60, 77-85 (2014).
 - 'Application of a fast pre-calculated model for vibration impact assessment from underground trains to Metro Line 9 of Barcelona', A. Balastegui, R. Arcos, J. Romeu & T. Pàmies, *Noise Control Engineering Journal*, 61, 159-168 (2013).
 - 'New siren tones optimised for increased detectability distances of emergency vehicles', A. Balastegui, J. Romeu, A. Clot & S.R. Martín, *Applied Acoustics*, 74, 803-811 (2013).
 - 'Sound radiation from an aperture in a rectangular enclosure under low modal conditions', T. Pàmies, J. Romeu, M. Genescà & A. Balastegui, *Journal of the Acoustical Society of America*, 130, 239-248 (2011).
 - 'Determination of the near field distance for point and line sources acting on the surface of an homogeneous and viscoelastic half-space', R. Arcos, J. Romeu, A. Balastegui & T. Pàmies, *Soil Dynamics and Earthquake Engineering*, 31, 1072-1074 (2011).
 - 'Passive acoustic method for tracking moving sound sources', M. Genescà, J. Romeu, T. Pàmies & A. Balastegui, *Acta Acustica united with Acustica*, 97, 34-43 (2011).
 - 'Two Step Optimization of Transducer Locations in Single Input Single Output Tonal Global Active Noise Control in Enclosures', J. Ignacio Palacios, J. Romeu & A. Balastegui, *Journal of Vibration and Acoustics*, 132, 061011 8p (2010).
 - 'Estimating the rate and luminosity function of all classes of GRBs', A. Balastegui, P. Ruiz-Lapuente & R. Canal, *Astronomy Reports*, 55, 867-877 (2011).
 - 'Measuring Ω_M and Ω_Λ with long-duration gamma-ray bursts', A. Balastegui, P. Ruiz-Lapuente & R. Canal, *Astronomische Nachrichten*, 331, 837-842 (2010).
 - 'Type Ia SNe Along Redshift: The R/Si II Ratio and the Expansion Velocities in Intermediate-z Supernovae', G. Altavilla, P. Ruiz-Lapuente, A. Balastegui et al., *Astrophysical Journal*, 695, 135-148 (2009).
 - 'The early spectral evolution of SN 2004dt', G. Altavilla, M. Stehle, P. Ruiz-Lapuente, P. Mazzali, G. Pignata, A. Balastegui et al., *Astronomy & Astrophysics*, 475, 585-595 (2007).
 - 'Neural network classification of gamma-ray bursts', A. Balastegui, P. Ruiz-Lapuente & R. Canal, *Il Nuovo Cimento C*, 28, 801-804 (2005).
 - 'Reclassification of gamma-ray bursts', A. Balastegui, P. Ruiz-Lapuente & R. Canal, *MNRAS*, 328, 283-290 (2001).
-

SELECTED CONFERENCE PROCEEDINGS

- 'Cluster analysis for temporal stratification of the week days', Quintero, G. ; Balastegui, A.; Romeu, J. , 47th International Congress in Noise Control Engineering, 2018, Chicago, USA.
- 'Street classification by means of cluster categorization for the night period', Quintero, G. ; Romeu, J. ; Balastegui, A., Tecnicústica 2018, Cádiz, Spain.
- 'Seasonal, monthly and daily stratification for annual noise level estimation', Quintero, G. ; Romeu, J. ; Balastegui, A., Internoise 2017, Hong Kong, China.
- 'Plan de acción contra el ruido de actividades de ocio al aire libre', Jimenez, S.; Romeu, J.; Balastegui, A.; Vega, C., IX Congreso Iberoamericano de Acústica, 2014, Valdivia, Chile.
- 'Contribution to the Understanding of Particle Motion Perception in Marine Invertebrates', Andre, M.; Kaifu, K.; Solé, M.; van der Schaar, M.; Akamatsu, T.; Balastegui, A.; Sanchez, A.M.; Castell, J.V., 3rd International Conference on the Effects of Noise on Aquatic Life, 2013, Budapest, Hungary.
- 'On the power and frequency of auditory signals on emergency vehicles', A. Balastegui, J. Romeu, A. Clot & Sara Martín, Internoise 2011, Osaka, Japan.
- 'A ground-borne vibration assessment model for rail systems at-grade', J. Cardona, J. Romeu, R. Arcos, & A. Balastegui, Internoise 2010, Lisbon, Portugal.
- 'Development of frequency-domain source models for railway vibration impact assessment', J.I. Palacios, R. Arcos, M. Prat & A. Balastegui, Euronoise 2009, Edinburgh, Scotland.
- 'CATdBren project: A complete model for the assessment of vibration impact from new railway infrastructures', G. Alarcón, J.I. Palacios, J. Romeu, A. Balastegui, R. Arcos & A. Sánchez, Euronoise 2009, Edinburgh, Scotland.
- 'Two step optimization of secondary sources and error transducers in global active noise control in enclosures', J.I. Palacios, J. Romeu & A. Balastegui, 16th International Congress on Sound and Vibration 2009, Krakow, Poland.
- 'CATdBren project: New prediction tool of vibration impact for railway infrastructures', J. Romeu, A. Balastegui, R. Arcos, A. Sánchez, J.I. Palacios & G. Alarcón, 16th International Congress on Sound and Vibration 2009, Krakow, Poland.
- 'Caracterización de las vibraciones provocadas por la circulación ferroviaria sobre un viaducto', J. Cardona, R. Arcos, J. Romeu, S. Jimenez & A. Balastegui, Tecnicústica 2009, Cádiz, Spain.
- 'Surface Vibration Pattern Induced by Underground Trains', A. Balastegui, R. Arcos, J. I. Palacios & J. Cardona, Internoise 2008, Shanghai, China.
- 'Neural network classification of gamma-ray bursts', A. Balastegui, P. Ruiz-Lapuente & R. Canal, Gamma-Ray Burst in the Afterglow Era: 4th Workshop, 2004, Rome, Italy.
- 'Supernova Search at Intermediate-redshift: I. Spectroscopic Analysis', Altavilla, G., Ruiz-Lapuente, P., Balastegui, A. et al., XIII Joint European and National Astronomical Meeting, 2004, Granada, Spain.
- 'Supernova Search at Intermediate-redshift: II. Host Galaxy Morphology', A. Balastegui, P. Ruiz-Lapuente, J. Méndez et al., '1604-2004: Supernovae as Cosmological Lighthouses', 2004, Padova, Italy.
- 'Supernova Search at Intermediate-redshift: III. Expansion Velocities of the Ejecta', Méndez, J., Ruiz-Lapuente, P., Altavilla, G., Balastegui, A., Irwin, M., Schamanache, K., Balland, C., Pain, R., Walton, N., '1604-2004: Supernovae as Cosmological Lighthouses', 2004, Padova, Italy.
- 'Neural network classification of gamma-ray bursts', A. Balastegui, P. Ruiz-Lapuente & R. Canal, proceedings of I High Energy Astrophysics meeting, 2002, Barcelona.
- 'Measuring Ω_M , Ω_Λ and the SFR with class III GRBs', A. Balastegui, P. Ruiz-Lapuente & R. Canal, 'Gamma-ray bursts and afterglow astronomy', 2001, Woods Hole, Massachusetts, USA.

FINANCED PROJECTS

- 'BiSC: Barcelona Life Study Cohort', European Research Council, 2019-2020.
 - Noise reduction of industrial machines for different products and companies like AUSA, COMEXI, GIRO among others.
 - 'Innovative solutions for vibration insulation of buildings', Spanish Government, 2015-2018.
 - 'Active window: Active noise control through apertures', Spanish Government, 2012-2014.
 - 'Research and design of acoustic signals on emergency vehicles', Barcelona City Council, 2009-2012.
 - 'Research on vibratory impact of railways in cities', Catalan Government, 2008-2009.
 - 'Vibratory Response of Line 9 of Metro Barcelona', IFERCAT, 2007-2009.
 - 'Reduction of aerogenerator mechanical and cooling noise emissions by means of active and passive counter-measures', Gamesa S.A., 2007.
 - 'The Physics of Type Ia Supernova Explosions', 5th Framework Program EU, 2002-2006.
 - 'Las componentes del universo', Spanish Government, 2003-2006.
-