

Curriculum Vitae: Stefan Bilbao

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05/09/2020

Employment History

2017- Professor, Reid School of Music, University of Edinburgh (formerly Reader, 2013-2017, Senior Lecturer, 2007-2013, and Lecturer, 2005-2007).
2002-2005 Lecturer, School of Music/Sonic Arts Research Centre, Queen's University Belfast.
2001-2002 Postdoctoral Research Fellow, Space Telecommunications and Radioscience Laboratory, Stanford University.

Education

2001 Ph.D. Electrical Engineering, Stanford University.
1996 MSc. Electrical Engineering, Stanford University.
1992 B.A. Physics, Harvard University.

Publications

51 journal publications, 114 conference proceedings articles, two book chapters and two research monographs. Recent work:

2019 S. Bilbao, J. Ahrens and B. Hamilton, "Incorporating Source Directivity in Wave-based Virtual Acoustics: Time-domain Models and Fitting to Measured Data," *J. Acoustical Society of America*, 46(4):2692–2703, 2019. 12 pp. [.pdf](#)
2019 S. Bilbao, A. Politis and B. Hamilton, "Local Time-domain Spherical Harmonic Spatial Encoding for Wave-based Acoustic Simulation," *IEEE Signal Processing Letters*, 26(4):617–821, 2019. 5 pp. [.pdf](#)
2019 S. Bilbao and B. Hamilton, "Directional Sources in Wave-based Acoustic Simulation," *IEEE/ACM Transactions on Audio Speech and Language Processing*, 27(2):415–428, 2019. 14 pp. [.pdf](#)

Research Supervision

13 PhD students, 13 postdoctoral research associates/technical staff, 39 MSc dissertation supervisions, 16 visiting research students, 13 PhD/Habilitation external examination committees.

Major Grants

2016-2018 PI, European Research Council Proof of Concept Grant: Wave-based Room Acoustics Modeling, £107 000.
2012-2016 PI, European Research Council Starting Grant: Next Generation Sound Synthesis, £1 175 000.
2006-2008 PI, Leverhulme Trust Project Grant, £27 000.
2006-2009 PI, EPSRC First Grant, 2006-2009, £84 000.
2005-2008 Co-I, Agence Nationale de la Recherche grant (France): Consonne, 430 000 Euro.
2004-2006 Co-I, Invest Northern Ireland/Digital Theatre Systems project grant, £ 1 100 000.

Lectures

64 invited lectures at University research laboratories, international symposia and festivals, and for industry, including:

2020 Keynote lecture, Timbre 2020, Thessaloniki, Greece.
2015 Keynote lecture, 12th Sound and Music Computing Conference, Maynooth, Ireland.
2014 Keynote lecture, International Symposium on Musical Acoustics, Le Mans, France.
2012 Invited workshop, High-performance Computing workshop, City University of New York, USA.
2012 Invited tutorial, 15th International Conference on Digital Audio Effects, York, UK.

Other Activities

Member: Audio Engineering Society, Acoustical Society of America, IEEE (Senior Member).

Associate Editor: IEEE Transactions on Audio Speech and Language Processing (2019-2022).

Co-founder: Roomerical Ltd. (with Brian Hamilton) and Physical Audio Ltd. (with Craig Webb and Michele Ducceschi).

Peer reviewing: 54 international journals, international conferences, academic publishers and funding bodies.

Conference Program/Scientific Committees: International Conference on Digital Audio Effects: 2008-09, 2012-14, 2016, 2018, general chair 2017; Sound and Music Computing Conference, (2011, 2015, 2017, 2019-20); International Symposium on Musical Acoustics, (2017); ViennaTalk (2015, 2020); International Computer Music Conference (2006-07, 2014-2015); Computer Music Multidisciplinary Research (2013, 2015).

Awards: Best paper awards at the International Conference on Digital Audio Effects (2008, 2012, 2014, 2015) and the Sound and Music Computing Conference (2017).

Chairing/Special Session Organiser: Chairing at international conferences on 16 occasions. Special session organisation at the International Congress on Acoustics (2019), European Nonlinear Dynamics Conference (2020), Forum Acusticum (2020).