



UNIVERSIDAD
DE MÁLAGA

Vicerrectorado de Investigación
III Plan Propio de Investigación

B.2.

SOLICITUD DE AYUDAS A LOS
DEPARTAMENTOS PARA
CONFERENCIAS CIENTÍFICAS

UNIVERSIDAD DE MÁLAGA
Departamento de Ingeniería
de Comunicaciones
SALIDA
Nº 30
Málaga 18/02/2014

Datos del solicitante (El Director del Dpto.):

Apellidos: CAÑETE CORRIPIÓ Nombre: FRANCISCO JAVIER
DNI: _____ Cargo académico: DIRECTOR DE DEPARTAMENTO
Dpto.: INGENIERÍA DE COMUNICACIONES Centro: E.T.S.I.T
e_mail: francisco.cuma.en Teléfono: 37121 Tlf. Móvil: _____

Propuesta de conferenciantes (*):

Apellidos: VORLÄNDER Nombre: MICHAEL
NIF/Pasaporte: C7ZJVYJ43 Centro de procedencia: RWTH
Ciudad: AACHEN País: ALEMANIA Fecha prevista de realización: 03 MARZO 2014
Título de la conferencia: SPHERICAL ARRAY IN ROOM ACOUSTICS

Apellidos: _____ Nombre: _____
NIF/Pasaporte: _____ Centro de procedencia: _____
Ciudad: _____ País: _____ Fecha prevista de realización: _____
Título de la conferencia: _____

(*) Si tiene más de tres propuestas de conferenciantes, utilice el impreso de la página siguiente.

Málaga, 17 de Febrero de 2014
EL DIRECTOR DEL DPTO.

EXCMO. SR. VICERRECTOR DE INVESTIGACIÓN

Curriculum Vitae

Prof. Dr. rer. nat. Dr.-Ing. habil. Michael Vorländer

Birth: 23.10.1958 in Duisburg / Germany

School education: from April 1964, finished June 1977

Military service: July 1977 to September 1978

University education: Physics
1978 to 1981 in Dortmund
1981 to 1984 in Aachen

Diploma Degree: 1984 Diploma (Dipl.-Phys.), RWTH Aachen University

Professional work:

1985 – 1989 Research assistant at the Institute of Technical Acoustics RWTH Aachen

1989 PhD examination, Dr. rer. nat., Title of thesis: „*Investigation of the efficiency of the room acoustical ray tracing model*“

1989 – 1991 Researcher at the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig.
Research in the areas of audiological measurements, binaural technology and microphone calibration

1991 – 1996 Head of the laboratory of building acoustics of the PTB: Research, development and standardisation in the areas of room and building acoustics, sound emission and absorption measurement and microphone calibration

1995 Habilitation (Dr.-Ing. habil., Qualification as university lecturer) at the Technical University Dresden. Title of thesis: „*Maximum-length sequence reciprocity calibration of microphones in the reverberation chamber*“

1996 Offer for chair at the Technical University Dresden,
Acceptance of an offer for chair at RWTH Aachen University

1.3.1996 Appointment of Professor and Director of the Institute of Technical Acoustics RWTH Aachen University

2002 - 2006 Chairman of the Examination Committee of the Faculty of Electrical Engineering and Information Technology of RWTH Aachen University

2007 - 2009 Vice-Dean of the Faculty of Electrical Engineering and Information Technology

2009 - 2011 Dean of the Faculty of Electrical Engineering and Information Technology

2010 – 2011 Spokesman of Deans of RWTH Aachen University

RWTH Aachen University is one of the nine universities of excellence in Germany. It is linked to other high-ranked universities in Europe such as Imperial College London, TU Delft, ETH Zürich and Paris Tech (IDEA league).

Teaching at RWTH Aachen University

Lectures: Technical Acoustics, Acoustic Virtual Reality, Acoustics and Noise control, Compact Course on Room Acoustics and Sound Reinforcement Systems.

Practical laboratory courses: Technical Acoustics, parts of: Communication Engineering, Biomedical Engineering, Bionics

Seminars: Virtual Acoustics, Audio Engineering, PhD seminar

BSc and MSc projects: ca. 20 per year

Doctorates: ca. 2 per year

Main research interests

Room acoustics, Building acoustics, Auralization, Psychoacoustics, Acoustic measurements

Memberships / additional activities:

- Member of German Acoustical Society (DEGA), 1998 – 2004 Board member
- Member of German Physical Society (DPG)
- Member of Acoustical Society of America (ASA)

- 2006 – Member of the Council for International Research and Education of ASA
- 2004 – 2007 President of the European Acoustics Association, EAA
- 2007 – 2010 Vice-President of the European Acoustics Association, EAA
- 2007 – Member of the Board of the International Commission for Acoustics, ICA
- 2011 – 2013 President of the International Commission for Acoustics, ICA

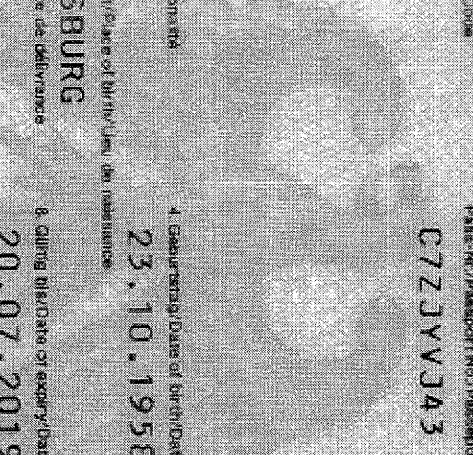
- 1998 – 2003: Editor-in-Chief of „Acta Acustica united with Acustica”.
- since June 1996: Editorial Board of the Journal „Applied Acoustics“

- 2005 R.W.B. Stephens Medal of the Institute of Acoustics, United Kingdom
- 2006 Fellow of the Acoustical Society of America
- 2008 Diploma de Reconhecimento de Actividade, Acoustical Society of Portugal
- 2009 Caracola, Spanish Acoustical Society

Actual information: <http://www.akustik.rwth-aachen.de>

BLAU

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Departamento de Ingeniería de Comunicaciones

CONFERENCIA

Spherical Array in Room Acoustics

impartida por

Prof. Michael Vorländer

Director of the Institute of Technical Acoustics
RWTH Aachen University

Día:

Lunes, 3 de Marzo de 2 014

Hora:

12:00

Lugar:

Sala de Grados B

E.T.S. Ingeniería de Telecomunicación

Campus de Teatinos

Contenido:

Multi-channel spherical loudspeakers became popular for simulation of musical instruments in rooms. In this lecture a spherical source with a partial Gaussian distribution of 28 channels is presented. With sequential measurements and rotation of the sphere a radiation of effectively 23rd order of spherical harmonics is obtained, as long as the room acoustic conditions are time-invariant. In application of room acoustic auralization, this source can reproduce musical instruments, for example, or it can radiate directional Dirac functions (sound pointer) for detection and analysis of room reflections. Filter design and various applications are discussed as well as an approach for measurement of binaural room impulse responses reciprocally. In the latter example, the spherical loudspeaker acts as an HRTF radiator. For all applications in auralization, rotations of the source and the listener such as head orientation movements can be taken into account by multi-channel real-time convolution and dynamic filters. The theoretical background, the mechanical solution and the software components are discussed and evaluated with regard to challenges, performance, and limitations.