



10TH BERLIN BEAMFORMING CONFERENCE
JUNE 10-11, 2024
BERLIN, GERMANY

Opening – Welcome to the 10th Berlin Beamforming Conference!
Henri Siller (DLR)

Welcome to the 10th Berlin Beamforming Conference!

PROGRAM COMMITTEE 2024



D. Döbler
GFal e.V., Berlin, Germany



R.P. Dougherty
OptiNav Inc., Bellevue, USA



O. Jaeckel
GFal e.V., Berlin, Germany



U. Michel
CFD Software E+F GmbH, Berlin, Germany



C. Puhle
GFal e.V., Berlin, Germany



E. Sarradj
TU Berlin, Germany



P. Sijtsma
PSA3, Wezep, Netherlands



H. Siller
DLR, Berlin, Germany

What BeBeC is about

- Methods, concepts and applications presented and discussed
 - CLEAN-SC, SODIX, moving sources, rotating sources, MEMS arrays, Bayesian, methods, indoor, 3D, jet noise, volcanoes, crowd noise at football games, ...
- Beamforming pioneers and experts from academia and industry
 - Michel, Dougherty, Sijtsma, Brusniak, Blacodon, ...
- Added value: the BeBeC website
 - papers online
 - literature data base



Cause or effect of BeBeC participation?

- CEAS AERONAUTICAL JOURNAL Most Cited Papers Award 2022:
 - R. Merino-Martínez, P. Sijtsma, M. Snellen, T. Ahlefeldt, J. Antoni, C. J. Bahr, D. Blacodon, D. Ernst, A. Finez, S. Funke, T. F. Geyer, S. Haxter, G. Herold, X. Huang, W.M. Humphreys, Q. Leclère, A. Malgoezar, U. Michel, T. Padois, A. Pereira, C. Picard, E. Sarradj, H. Siller, D. G. Simons & C. Spehr: A review of acoustic imaging methods using phased microphone arrays: Part of the “Aircraft Noise Generation and Assessment” Special Issue. CEAS Aeronautical J 10, 197–230 (2019). pp. 197-230, <https://doi.org/10.1007/s13272-019-00383-4>
- CEAS and AIAA Aeroacoustic award winners on the BeBeC committee
 - Ulf Michel (2012, CEAS)
 - Bob Dougherty (2020, AIAA)
 - Pieter Sijtsma (2024, CEAS)



First Berlin Beamforming Conference

November 21st – 22nd, 2006

Conference Program

The 1-st Day of the Conference: Tuesday, 21st November

Registration: 8:00 - 9:00 in the entrance hall Newton cabinet, Rudower Chaussee 17, 12489 Berlin-Adlershof

Schedule of Lectures:

09:00 - 09:15 Conference Opening Prof. Alfred Iwainsky, GFaI

Chairman: Prof. Möser

09:15 – 10:30 Lecture L1 U. Michel, History of acoustic beamforming

10:30 – 11:00 Tea/Coffee Break

11:00 – 11:25 Presentation 1 O. Jaeckel, Strengths and weaknesses of calculating beamforming in the time domain

11:30 – 11:55 Presentation 2 E. Sarradj, Aspects of source separation in beamforming

12:00 – 12:25 Presentation 3 H.Siller et al, Novel Methods for Acoustic Indoor Measurements and Applications in Aero-Engine Test Cells

12:30 – 14:00 Lunch

Chairman: Prof. Sarradj

14:00 – 14:30 Presentation 4 P. Baumann, Total effective Sound Pressure Level of Acoustic Camera (Ring 32-4211) compared with four Free-field 1/2" Microphones

14:30 – 15:00 Presentation 5 J. Müller, Noise detection at car door module with acoustic camera

15:00 – 15:30 Tea/Coffee Break

15:30 – 16:00 Presentation 6 K. Ehrenfried, Effects of wind-tunnel noise on array measurements in closed section

16:00 – 16:30 Presentation 7 A. Quayle, Comparison of source estimation methods for closed tunnel noise measurements

16:30 – 17:00 Presentation 8 Yu Liu, Application of Phased Arrays in the Study of Roughness Noise

19:30 evening meeting

The 2-nd Day of the conference: Wednesday, 22nd November

Schedule of Lectures:

Chairman: Prof. Michel

09:00 – 09:40 Lecture L2 M. Möser, The role of beamforming in technical acoustics

09:45 – 10:15 Presentation 9 R. Behrendt, Scanning Laser Vibrometry for Detection of Noise Sources with High Spatial Resolution

10:15 – 10:45 Tea/Coffee Break

10:45 – 11:45 Lecture L3 R. Bannasch, Acoustic Underwater Communication, 3D-Positioning and Object Recognition based on Bionic Principles

11:45 – 12:15 Presentation 11 A. Zeibig, Microphone array measurements on aeroacoustic sources

12:15 – 12:45 Presentation 12 A. Wettklo, Tonic strains of a chamber orchestra

13:00 – 14:00 Lunch

Chairman: Prof. Zeibig

14:00 – 14:30 Presentation 13 H. Opfer, M. Kern, Extension of beamforming methods using synchronized multiple measurements

14:30 – 15:00 Presentation 14 S. Guerin, Acoustic Beamforming and deconvolution for moving sources

15:00 – 15:30 Presentation 15 D. Döbler, Noise source localization within a interior using 3D-microphone arrays

15:30 – 16:00 Final Discussion with Tea/Coffee



The early years



BEBEC 2014

February 19 - February 20, 2014



BEBEC 2012

February 22 - February 23, 2012



BEBEC 2010

February 24 - February 25, 2010



BEBEC 2008

February 19 - February 20, 2008



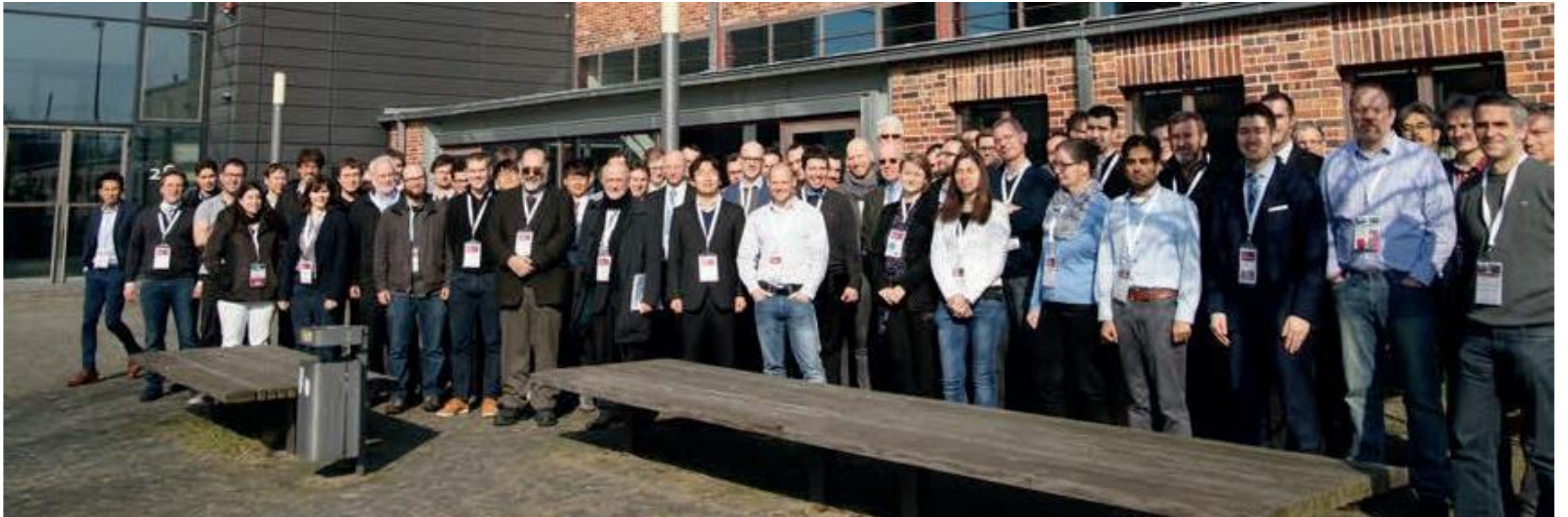
BEBEC 2006

November 21 - November 22, 2006



2016

- BeBeC moves to Adlershof
- with two parallel sessions



2018



2020

- the Covid pandemic



2022

- BeBeC is alive and kicking!



The Berlin Beamforming Conference

A success story!

- 1st BeBeC November 21st – 22nd, 2006 at TU-Berlin
 - 34 participants, 19 presentations,
 - 4 countries (26 D, 4 GB, 2 CH, 2 F),
 - academia and industry (19/15)
- 10th Berlin Beamforming Conference June 10-11, 2024
 - 23 presentations,
 - 11 countries (AT, CA, CN, 8 DE, DK, FR, 2 HU, KR, 4 NL, UK)
 - academia and industry (17/6)

