

# Research publications

## *Theses and dissertations*

- 1 P. Juhl: Boundary Element. MSc Thesis, 1991.
- 2 P. Juhl: The boundary element method for sound field calculations *The Acoustics Laboratory, Technical University of Denmark, Report no 55*, 1993. PhD Thesis.

## *Papers Published in Refereed Journals*

- 1 K.B. Rasmussen, P.M. Juhl  
The effect of head shape on spectral stereo theory  
*Journal of Audio Engineering Society* **41** (1993) (3), pp.135-142
- 2 P. Juhl  
An axisymmetric integral equation formulation for free space non-axisymmetric radiation and scattering of a known incident wave  
*Journal of Sound and Vibration* (1993) **163** (3), pp.397-406
- 3 P. Juhl  
A numerical study of the coefficient matrix of the boundary element method near characteristic frequencies  
*Journal of Sound and Vibration* (1994) **175** (1), pp.39-50
- 4 P. Juhl  
A numerical investigation of standard condenser microphones  
*Journal of Sound and Vibration* (1994) **177** (4), pp.433-446
- 5 P. Juhl  
A note on the convergence of the direct collocation boundary element method  
*Journal of Sound and Vibration* (1998) **212** (4), pp.703-719
- 6 F. Jacobsen, V. Cutanda, P. M. Juhl  
A numerical and experimental investigation of the performance of sound intensity probes at high frequencies  
*Journal of the Acoustical Society of America* (1998) **103** (2) pp.953-961
- 7 P. Juhl  
Non-axisymmetric acoustic propagation in and radiation from lined ducts in a subsonic uniform mean flow: An axisymmetric boundary element formulation  
*ACUSTICA • Acta Acustica* (2000) **86** pp.860-869
- 8 V. Cutanda, P. Juhl, F. Jacobsen  
On the modeling of narrow gaps using the standard boundary element method  
*Journal of the Acoustical Society of America* (2001) **109** (4) pp.1296-1303

- 9 J.-D. Polack, L. S. Christensen, P. M. Juhl  
An innovative design for omnidirectional sound sources  
*ACUSTICA • Acta Acustica* (2001) **87**(4) 513-518.
- 10 S. Q. y Alpera, F. Jacobsen, P. M. Juhl, V. C. Henriquez,  
A BEM approach to validate a model for predicting sound propagation over non-flat terrain.  
*Applied Acoustics* (2003) **64** 781–791
- 11 P. Juhl, F. Jacobsen  
A note on measurement of sound pressure with intensity probes.  
*Journal of the Acoustical Society of America* (2004) **116**, 1614-1620.
- 12 P. Juhl and F. Jacobsen  
A numerical investigation of the influence of windscreens on measurement of sound intensity.  
*Journal of the Acoustical Society of America* **119**, 2006, 937-942.

### **Papers Published in Other Journals**

- 1 F. Jacobsen, V. Cutanda and P.M. Juhl: A sound intensity probe for measuring from 50 Hz to 10 kHz. *Brüel & Kjaer Technical Review* **1**, 1996, 1-8. (Reprint of Congress Paper no 3.)

### **Conference Papers Published in Proceedings**

- 1 P. Juhl  
On selecting CHIEF points to overcome the nonuniqueness problem in boundary element methods  
*Proceedings of the Second International Congress on air- and structure-borne Sound and Vibration* (1992), **2**, 965-971
- 2 P. Juhl  
A numerical study of the convergence of boundary element formulations with application to microphone free-field corrections  
*Proceedings of the Third International Congress on air- and structure-borne Sound and Vibration* (1994), **2**, 807-814
- 3 F. Jacobsen, V. Cutanda, P. Juhl  
A sound intensity probe for measuring from 50 Hz to 10 kHz  
*Proceedings of the 25<sup>th</sup> international congress on noise control engineering* (1996), pp.3357-3362
- 4 V. Cutanda, P. Juhl, F. Jacobsen  
A numerical investigation of the performance of sound intensity probes at high frequencies  
*Proceedings of the Fourth International Congress on Sound and Vibration* (1996) **3**, pp.1897-1904
- 5 P. Juhl  
A boundary element model for lined ducts with uniform flow  
*Proceedings of the Fourth International Congress on Sound and Vibration* (1996) **2**, pp.881-888
- 6 P. Juhl  
An introductory study of the convergence of the direct boundary element method  
*Proceedings of the Fifth International Congress on Sound and Vibration* (1997) **2**, pp.825-832

- 7 P. Juhl  
Radiation from a lined duct in uniform flow using the boundary element method  
*Proceedings of the Sixth International Congress on Sound and Vibration* (1999) **1**, pp.595-602
- 8 P. Juhl  
Iterative solution of the direct collocation BEM equations  
*Proceedings of the Seventh International Congress on Sound and Vibration* (2000) **4**, pp.2077-2084
- 9 M. Jensen, P.Juhl  
Efficient acoustic BEM calculations on axis-symmetric bodies with non-axis-symmetric fields using elliptic integrals and FFT  
*Proceedings of the 29<sup>th</sup> international congress on noise control engineering* (2000) **4**, pp.2580-2584
- 10 M.A. Sobreira-Seoane, P. Juhl, V.C. Henriquez  
Calculation of transfer functions related to a head and torso simulator  
*Proceedings of the Eighth International Congress on Sound and Vibration* (2001). CD-ROM 8 pp.
- 11 V. C. Henriquez, P. Juhl  
Calculation of visco-thermal losses in thin fluid layers using BEM  
*Proceedings of the Ninth International Congress on Sound and Vibration* (2002). CD-ROM 8 pp.
- 12 P. Juhl, S. Q. y Alpera, V. C. Henriquez , F. Jacobsen  
On the non-uniqueness problem in a 2-D half-space BEM formulation  
*Proceedings of the Ninth International Congress on Sound and Vibration* (2002). CD-ROM 8 pp.
- 13 K. B. Rasmussen, P. Juhl.  
An application of boundary element method calculations to hearing aid systems:  
The influence of the human head.  
*Journal of the Acoustical Society of America* (2004), **115**, 2588.
- 14 F. Jacobsen, P. Juhl  
Sound power measurements using intensity at high frequencies.  
*Proceedings of Inter-Noise 2004, Prague, Czech Republic*, (2004). CD-ROM, 8 pp.
- 15 P. Juhl, F. Jacobsen  
A numerical investigation of the influence of windscreens on sound intensity measurements.  
*Proceedings of 18<sup>th</sup> International Congress on Acoustics, Kyoto, Japan* (2004), pp. 2763-2766.
- 16 P. Juhl, F. Jacobsen  
Sound pressure measurements with sound intensity probes.  
*Proceedings of 18th International Congress on Acoustics, Kyoto, Japan* (2004), pp. 2209-2212.
- 17 P. Juhl, S.O. Petersen, J. Hald  
Localizing sound sources in 3-D space using spherical harmonic beamforming  
*Proceedings of Inter-Noise 2005, Rio De Janeiro, Brazil*, (2005), CD-ROM 10 pp.

## **Technical Reports**

- 1 P. Juhl  
Axisymmetric integral formulation for non-axisymmetric boundary conditions

*Report no. 47, The Acoustics Laboratory (1991)*

- 2 P. Juhl  
Numerical liner study  
*Internal report FANPAC-DE-95-TI-1.1 (1995)*
- 3 P. Juhl  
Boundary element model for uniform flow  
*Internal report DUCAT-DE-98-TI-1.1 (1998)*

## **Lecture Notes**

- 1 F. Jacobsen and P. Juhl  
Radiation of sound.  
*Acoustic Technology, Ørsted•DTU, Technical University of Denmark, 2006. (70 pp.)*