

NEWSLETTER 2016

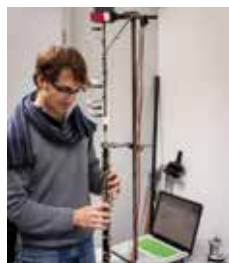
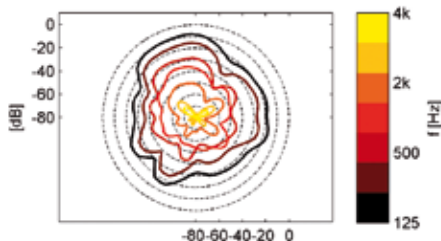
RESEARCH ACTIVITIES

Marie Curie project „BATWOMAN“

ETI is a member of the Basic Acoustics Training- & Workprogram On Methodologies for Acoustics-Network is the Initial Training Network (ITN) No. 605867, funded under the FP7 (FP7-PEOPLE-2013-ITN) Marie Curie programme of the European Commission. Within two doctoral studies the interaction of musicians and rooms and the directivity of reverberation are investigated. The project will be funded until Aug. 31, 2017.

Sound radiation characteristics of musical instruments

We aim at measuring the change in radiation characteristics of musical instruments during playing. Time resolved sound radiation polar plots of a broad variety of instruments have been obtained from measurements with a ring-shaped microphone array.



Set-up for musical instrument directivity measurements in the horizontal plane and and results (left/centre); set-up for measurement of input impedances of woodwind instruments (right)

Physical modelling of reed wind instruments

For the purpose of estimating sound and playing characteristics of a reed instrument from its geometry and material parameters, we are using a reduced physical model and experimental data obtained with an artificial mouth.

DFG-funded project “Technologies of singing“

Our work package within this joint project with the Musicology seminar aims at investigating the impact of early recording devices on the singing performance and and voice quality of singers. „This project part has started in August 2016 and will be funded for 3 years.



DFG team members (from right to left):

Prof. Dr. R. Grotjahn, Dr. T. Hähnel, L. Mersch, D. Habasinska, T.A. Weege, Dr. K. Martensen, Prof. Dr. M. Kob

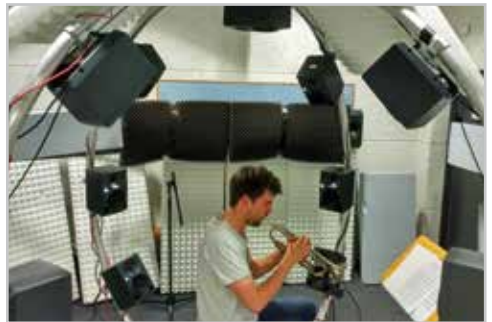
RESEARCH@ETI

RECENT PUBLICATIONS

- S. V. Amengual Garí, T. Lokki, M. Kob: Live performance adjustments of solo trumpet players due to acoustics. Int. Symposium on Musical and Room Acoustics 2016, La Plata, Argentina
- S. V. Amengual Garí, D. Eddy, M. Kob, T. Lokki: Real-time auralization of room acoustics for the study of live music performance. DAGA 2016, Aachen
- D. Eddy: Acoustic impedance probe for oboes, bassoons, and similar narrow-bored instruments. DAGA 2016, Aachen
- T. Grothe, J. Baumgart: A comparison of intonation estimates for reed woodwinds. DAGA 2016, Aachen
- D. Kusic, S.V. Amengual, A. Hadjakos, M. Kob: Extraction and evaluation of temporal musical features from MIDI recordings of organ music. DAGA 2016
- M. Kob, S. V. Amengual Garí, B. Sahin, A. Hadjakos, M. Saulich: Online-Tool for interactive sound analysis of orchestra instruments. DAGA 2016, Aachen
Online at:
<http://amise.netzwerk-musikhochschulen.de>
- M. Kob: Synthese der Vokalstimme & Lineare und nichtlineare Effekte & Quelle-Filter-Modell (mit A. Mecke). In: Lexikon der Gesangsstimme. Geschichte – Wissenschaftliche Grundlagen – Gesangstechniken – Interpretieren. A. Mecke / M. Pfeleiderer / B. Richter / T. Seedorf (Hrsg.), Laaber 2016
- M. Kob: Experimental approaches to the study of damping in musical instruments. In: Studies in Musical Acoustics and Psychoacoustics. A. Schneider (Hrsg.), Springer (12 pages, in print)
- M. Kob: Optimierte Raumakustik für künstlerischen, pädagogischen und diagnostischen Stimmgebrauch. In: Leipziger Symposien zur Kinder- und Jugendstimme. M. Fuchs (Hrsg.), Logos (10 pages, in print)

More publications and up-to-date information are available at:

www.hfm-detmold.de/die-hochschule/forschung
www.eti.hfm-detmold.de/forschung



Trumpet player performing in a virtual acoustic environment.

Contact

Erich-Thienhaus-Institute – ETI
Detmold University of Music
Phone: +49-(0)5231-975-644
email: kob@hfm-detmold.de

Workgroup „Music Acoustics“

Dr.-Ing. Malte Kob, Professor, Team leader
Dr.-Ing. Timo Grothe, postdoctoral research fellow
Sebastià Amengual, M.Sc.,
research assistant & doctoral candidate
Dorotà Habasinska, M.Sc.,
research assistant & doctoral candidate
Winfried Lachenmayr, Dipl.-Tonmeister,
doctoral candidate
Tobias Andreas Weege, M.Sc.,
student research assistant