

## Leaflet Master Class Acoustics for Symphonic Music

### Contents

The goal of this Master Class is to focus on the acoustics of the stage environment as well as on the auditorium by discussing the available knowledge from research as well as from practical design experience with the participants. In the presence of the master the participants will gain knowledge about the acoustic parameters developed to describe the subjective acoustic aspects of relevance to listeners and musicians and how these are used in prediction models. During the Master Class we will discuss to which degree we are able to predict the acoustic quality of a concert hall. Do we need to develop new parameters?

The Master Class is complemented by a workshop in measuring stage acoustic parameters and by a guest presentation of an experienced musician.

### What will be presented?

- Theory of room acoustics for concert halls meant for symphonic music: Room acoustic parameters, the influence and use of overall size and shape, different elements and finishes (diffusers, canopy, absorbing/reflecting finishes, audience).
- Acoustics for the audience in the room and for musicians on the stage: Subjective and objective acoustic parameters, the influence and use of volume, overall shape, different elements and finishes. What are the requirements at different positions for the audience and on the stage? When can we qualify the acoustics as poor/good/excellent?
- Workshop in prediction models. How to interpret the results?
- Workshop in measuring stage acoustic parameters.
- Guest presentation: the experience of musicians. Do the qualifications of the stage acoustics match with the experience of the musicians?
- Excursion; visit a concert hall, a concert and discuss the experiences.

### For whom?

The master class is primarily meant for acoustic consultants with several years of experience. The participants are expected to have considerable knowledge and experience in the field of room acoustics. Also, this Master Class can be suitable/interesting for PhD students and post-doctoral research fellows. The maximum size of the group is 12 persons.

### The master

The class will be given by dr. A.C. Gade, who is an associate professor at the Technical University of Denmark on "Room acoustics" and partner of Gade & Mortensen Akustik A/S.

### Guest speaker

During the Master Class a guest presentation will be given by Mr. H. Flintrop. He is a teacher at the Municipal Academy for Music, Dance and Drama and at the Royal Flemish Conservatory Antwerp. Besides he is the composer and arranger of BigBandLier. A summary of the content of the presentation is given further on in this leaflet.

### Dates

The Master Class will take place from Wednesday 22 April through Friday 24 April 2009.

### Location

Laboratorium voor Akoestiek (Level Acoustics BV)

The laboratory is located at the campus of Eindhoven University of Technology in the Netherlands.

### Costs

The cost for attending the Master Class is € 3.275,- (VAT excluded); this includes:

- A reader with literature and presentation sheets;
- A four night's stay in a hotel, including breakfast, lunch and diner.

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### **Registration**

You can register for the Master Class by filling in the paper registration form thoroughly and sending it to Level Acoustics by mail or email. Registrations will be accepted in the order in which they are received, up to a maximum of 12 participants. After receiving the registration form, we will send a confirmation and an invoice. The payment must be fulfilled within 30 days after receipt of the invoice. Your registration for the Master Class is confirmed after we receive the course fee.

### **Cancellation**

If you cancel more than four weeks before the Master Class starts, the course fee will be refunded, less € 327,50 for administration costs. If you cancel within one to four weeks before the Master Class starts, a refund of 50% of the course fee is given. Cancelling within the last week before the Master Class starts, implies no refund of the course fee. However, it is possible to send a substitute to follow the class, provided he or she has considerable knowledge and experience in the field of room acoustics. If there are not enough participants, Level Acoustics has the right to cancel the Master Class, up to one week before the start of the Master Class. In that case, the total course fee will be refunded.

### **Information and registration**

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### **Download the registration form here:**

[http://www.levelacoustics.nl/kennisoverdracht/masterclasses/info/Registration\\_form.doc](http://www.levelacoustics.nl/kennisoverdracht/masterclasses/info/Registration_form.doc)

### **Guest presentation**

#### **Improvement of modern big band bandstand acoustics by physical (non electronic) means**

Nowadays big bands bring a wide variety of genres and styles. Volume levels and textures are therefore much more extended than in the 1960s. Nevertheless, the bandstand setup has to facilitate all possibilities.

Physical sound reflectors and new seating arrangements can improve the overall audibility for individual players and band sections on the modern big band bandstand (stage). This will enhance the accuracy, blend and balance of the musical ensemble, resulting in a better impression of the performance to the audience. But to guarantee a realistic musical environment the improvements are to be gained by non electronic means. This restriction is inspired by the possibility of 1920's jazz bands to play with minimal amplification.

The guest presentation covers both the problems of a modern big band bandstand regarding a lack in clarity and accuracy in the ensemble, inadequate balance and difficulties in communication as well as possible improvements and their restrictions.

The guest presentation and discussion is followed by interactive experiments during a live big band concert (BigBandLier, [www.bigbandlier.be](http://www.bigbandlier.be)) in the small auditorium of the Muziekcentrum Frits Philips ([www.muziekcentrum.nl](http://www.muziekcentrum.nl)).