



Müller-BBM is one of the leading companies for consultancy, expertise, measurements and planning for buildings, environment and technology. Müller-BBM's room acoustic group provides support for the realization, refurbishment or reuse of cultural buildings like concert halls, opera houses or multi-purpose venues.

BATWOMAN (Basic Acoustics Training & Workprogram On Methodologies for Acoustics Network) is the **Initial Training Network (ITN)** No. 605867, funded under the FP7 Marie Curie program of the EC. Coordinator of the project is ViF - Kompetenzzentrum - Das virtuelle Fahrzeug Forschungsgesellschaft mbH, Graz.

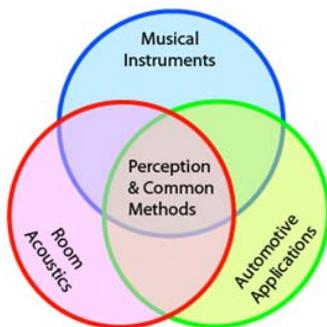
Within this project we are seeking an early-stage researcher (ESR) for a duration of 36 months to join the Room Acoustics Group at Müller-BBM GmbH, Planegg/Munich, Germany working on "Auditory related evaluation and modeling of concert halls".

ESR (Early Stage Researcher) Room Acoustics (m/f)



Background

BATWOMAN aims at structuring research training in basic and advanced acoustics and setting up a work program on methodologies for acoustics for skills development in a highly diverse research field offering multiple career options. The BATWOMAN consortium consists of public and private partners from musical acoustics, room acoustics and automotive acoustics whose merge their existing knowledge, extend it jointly and complement it with insights from recent sound perception research. This shall make use of existing synergies and overcome fragmentation in research, methodology and basic as well as advanced acoustics training. Simultaneously, it will advance the state of the art in acoustic modeling and in interdisciplinary design optimization. Adding the understanding of human auditory perception will help to consider sound quality parameters and to better understand their effects on well-being and cognition of people exposed to sound, but also harmful effects, like annoyance or even deteriorating cognitive performance.



BATWOMAN R&D scope.



BATWOMAN consortium.

Concert hall design is widely regarded as a synthesis of art and science with highest demands on acoustics – both for listeners and musicians. Computer modeling, measurements and applying electronically enhanced sound fields help to increase the understanding of concert hall acoustics. However, objective assessment of room acoustics

relies to a large extent on acoustic parameters derived from simulations or measurements. Experience and research confirm that these criteria are not adequately related to hearing impression in concert halls.

Task of the ESR's work is to advance the application of auditory modeling to evaluate and model concert hall acoustics. Measurements, recordings, simulations, listening tests and in particular working with electronic enhancement systems in the laboratory, in real halls and with professional orchestras will be the basis for the research work. The aim is to improve objective acoustic evaluation of concert halls, to derive approaches for improved room acoustic modeling methods and to enhance the understanding between architecture and acoustics.

The research activities will mainly be carried out at Müller-BBM located in Planegg near Munich, Germany, combined with research visits and/or short-term secondments to other members of the network

Candidate profile

An ideal candidate has a university degree as MSC, MA or similar, a profound background in classical music, experience in professional audio recordings, knowledge in room acoustics and psycho acoustics and knowledge of Matlab and/or programming languages (C++, Java, Visual.Basic). Female persons are especially encouraged to apply.

The program's eligibility criteria in short: The ESR holds a university degree giving the candidate access to doctoral studies, has got less than 4 years of research experience and has not yet been awarded a doctoral degree. At the time of appointment, the researcher may not have resided or carried out her/his main activity in Germany for more than 12 months in the 3 years immediately prior to her/his appointment.

The salary is in accordance with the EC FP7 regulations for Marie Curie ITN projects. The recruitment procedure does strictly comply with the ethical standards described in the Code of Conduct for Recruitment of Researchers (<http://cordis.europa.eu/fp7>).

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