

OPEN POSITION AT LMS INTERNATIONAL IN THE FIELD OF ISOGEOMETRIC BOUNDARY ELEMENT METHOD

BATWOMAN (Basic Acoustics Training - & Workprogram On Methodologies for Acoustics - Network) is the **Initial Training Network (ITN)** No. 605867, funded under the FP7 Marie Curie programme of the EC. **Duration:** Sep. 1, 2013 - Aug. 31, 2017.

BACKGROUND: The BATWOMAN ITN 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 consortium consists of renowned public and private partners from musical acoustics, room acoustics and automotive acoustics who will merge their existing knowledge, extend it jointly and complement it with insights of recent sound perception research, (Fig. 1.) This will exploit existing synergies and overcome obvious fragmentation in research, methodology and basic as well as advanced acoustics training.

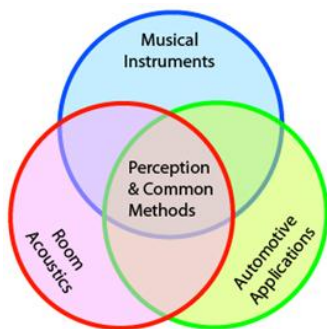


Fig. 1: BATWOMAN R&D scope.



Fig. 2: BATWOMAN consortium.

acoustics: Automotive sector, room acoustics and musical instrument acoustics, see Fig. 2. The industrial partners bring in application knowledge and expertise, and the research partners bring in a range of engineering methodologies, the capability of PhD research training, provision of courses and dissemination of results.

MARIE CURIE ELIGIBILITY CRITERIA – in short:

Early-Stage Researcher (ESR): holds an MSc degree in Engineering and has less than 4 years of experience and has not yet been awarded a doctoral degree¹.

Within BATWOMAN, LMS (www.lmsintl.com) is looking for an ESR (Duration 36 months) focusing on

“IsoGeometric Boundary Element Methods for Acoustic Analysis”

Objective: The ESR will investigate the efficiency and applicability of IsoGeometric Boundary Element Method applied to acoustics. The ESR will combine such approach with state-of-the-art BEM techniques like H-Matrix or FMBEM.

Typical complex shaped problem which occur in automotive interior (e.g. car audio design) and exterior (e.g. pass by noise assessment) acoustic problem will be used to assess the efficiency of the approach. The ESR will receive training and actively perform research in all aspects of the numerical methodology developed in the scope of this project.

CONSORTIUM: contains partners (6 universities, 1 research institutes and 4 companies) specialised in three specific application fields of

CANDIDATE PROFILE: All candidates must be fluent in spoken and written English. The R&D is highly multidisciplinary. An ideal candidate has a M.Sc. in engineering (e.g. dynamic, fluid-dynamics, acoustics, physics) and an adequate mathematical & computational background.

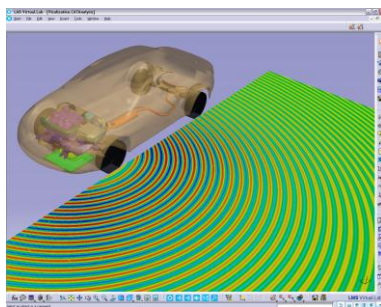
- Specific experience with CAE simulation methodologies and software (Finite Element Method (FEM), Boundary Element Method (BEM)...) is an advantage.
- Knowledge of NURBS-based CAD technology or IsoGeometric approach is an asset;
- Knowledge of programming languages (C/C++, Fortran, Visual.Basic, ...) and/or knowledge of Matlab are an advantage.
- Candidates who have the proper qualifications may get the opportunity to perform this work as part of a PhD study.

All members of the network are equal opportunity employers, both female and male candidates are invited to apply.

The research activities will mainly be carried out at Partner LMS International located in Leuven, Belgium, possibly combined with research visits and/or short-term secondments to other members of the network.

APPLY NOW! Start date target: Dec 1st, 2013 till Feb 1st, 2014

APPLICATION: To apply, please send a **detailed CV** together with a **letter of motivation** and **names of reference(s)** to



dr. Michel Tournour
Michel.Tournour@lmsintl.com
LMS International
Interleuvenlaan 68
B-3001 Leuven, Belgium

ADDITIONAL INFORMATION FOR APPLICANTS:

The remuneration will be in line with the EC rules for Marie Curie grant holders and consists of a salary augmented by a net mobility allowance. <http://cordis.europa.eu/fp7>.

¹ The research experience includes the period since gaining a university degree giving the candidate access to doctoral studies (the degree must entitle the holder to embark on doctoral studies, without having to acquire any further qualifications) or already in possession of a doctoral degree, independently of the time taken to acquire it. Among others, following criteria apply for eligibility:

- the researcher shall not be a national of the State in which the hosting partner's research team is located
- at the time of appointment, the researcher may not have resided or carried out her/his main activity in the country of the hosting partner for more than 12 months in the 3 years immediately prior to her/his appointment
- women are especially encouraged to apply.

SPECIFIC INFORMATION about the HOSTING ORGANIZATION

LMS, the leading partner in test and mechatronic simulation in the automotive, aero- space and other advanced manufacturing industries, helps customers get better products to market faster. With a unique combination of mechatronic simulation software, testing systems and engineering services, LMS tunes into mission critical engineering attributes, ranging from system dynamics, structural integrity and sound quality to durability, safety and power consumption. With multi-domain and mechatronic simulation solutions, LMS addresses complex engineering challenges associated with intelligent system design and model-based systems engineering. More than 1250 LMS professionals serve over 5,000 manufacturing companies worldwide.