Editorial

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The International Building Physics Conference (IBPC) takes place every 3 years and is organized by the International Association of Building Physics (IABP), a scientific association which was founded at the first IBPC, held in 2000 at the University of Eindhoven.

The conference is a well-established appointment for scientists, researchers and practitioners from all over the world to disseminate technical information, new ideas, the latest developments and discuss future direction in the fields of building physics. Moreover, the conference has created over the years a platform through which stakeholders from all countries may exchange their knowledge, traditions and experiences.

The 6th International Building Physics Conference (IBPC 2015) took place in the days 15-17 June 2015 in the lively city of Torino (Turin) in Italy, hosted and organized by the Politecnico di Torino.

IBPC 2015 was focused on the theme "Building Physics for a Sustainable Built Environment"; papers covered a broad range of topics relevant to the main subjects of building physics and in particular:

- Passive and active building envelope systems, advanced façades, integral building envelope performance,
- Building integrated RES (Renewable Energy Sources) and ZEB (Zero Energy Buildings), energy and economic sustainability of high performing buildings,
- Energy efficient retrofitting of existing buildings, energy and indoor environment management,
- Energy management, control and optimization of smart buildings in smart cities, from sustainable buildings to sustainable cities,
- The microclimate of old buildings, preventive conservation and restoration
- Indoor Environmental Quality and safety,
- Building acoustics, architectural acoustics, noise control,
- Thermal comfort and Indoor Air Quality, visual comfort, acoustic comfort,
- Daylighting, energy efficient lighting in new and existing buildings,
- Occupant behavior and energy needs in buildings.

The conference was really successful, since it attracted submissions from 64 countries around the world and more than 1,500 authors. IBPC 2015's technical program consisted of over 450 oral presentations and about 150 poster presentations, including five keynote lectures delivered by prominent scientists. All selected papers passed through an accurate peer-review process (at least two anonymous reviewers).
Various Sessions were devoted to the discussion of the acoustical aspects of buildings, such as:

- Architectural acoustics;
- Building acoustics and noise control;
- Noise control and architectural acoustics;
- Teaching and learning in healthy and comfortable classrooms;
- Acoustic comfort and interaction with other aspects of environmental quality.

Furthermore, given its interdisciplinary approach, the Conference was characterized by a certain number of papers which included acoustical aspects of buildings along with hygro-thermal and/or lighting aspects.

The current Issue of Building Acoustics is the first part of a Special Issue dedicated to the best papers presented at 6th IBPC. The papers were selected by the Guest Editors who attended the entire Conference and took also part to the review process of the Conference.

Seven papers are included in this first Special Issue, covering a wide range of topics in the field of building acoustics.

In particular, the first four papers deal with building and architectural acoustics, while the remaining three papers come from the Session "Teaching and learning in healthy and comfortable classrooms" and deal with classroom acoustics.

The paper by **Gagliano** et Al. presents an interesting acoustic correction of a modern church in southern Italy. Measurements were carried out before and after the acoustic correction. The work is valuable since mainly ancient churches are the object of acoustical studies in the literature.

The paper by **Bajraktari** et Al. is experimental and deals with the sound insulation of double facades with opening for natural ventilation. An original laboratory set up was realized, characterized by a modular double wall with open elements; the results are particularly interesting since R_w values are comparable to the ones of many common, fully closed and airtight windows.

The work of **Ruggeri** et Al. focused on sound transmission loss of multilayer glazing systems. A combined experimental and numerical approach was followed; many different glazing configurations were examined and a good agreement was found between measured and simulated values.

The paper by **Secchi** et Al. deals with the problem of sound transmission between rooms with curtain walls facades, a situation which is recurrent in office buildings. The study is conducted thanks to a case study; measurements were carried out before and after an acoustical intervention and design criteria are suggested at the end of the paper.

The paper by **Rantala** and **Sala** reports the association between classroom acoustic parameters, teacher's voice parameters and perceived vocal health. This interesting study highlights that good listening conditions for pupils do not necessarily imply good speaking conditions in classrooms.

Durup et Al. measured teacher's voice parameters in different classroom types and found a positive correlation between unoccupied ambient noise levels and average voice levels of the teachers, while they did not find significant correlation between reverberation times and voice levels.

The work by **Lyberg Åhlander** et Al. deepened the voice use, vocal behavior and

prevalence of voice problems in teachers with self-assessed voice problems and voice-healthy teachers, and found that the former were more affected by any loading factor in the work-environment and were more aware of the room acoustics.

The second part of this Special issue dedicated to the best acoustical papers presented at 6th IBPC will appear in the first half of 2016.

Arianna Astolfi
Francesco Asdrubali
Guest Editors

Prof. Arianna Astolfi, Department of Energy, Politecnico di Torino, Turin, Italy
Prof. Francesco Asdrubali, Department of Engineering, "Roma Tre" University, Rome, Italy