



THE DISSEMINATION OF ACOUSTICS IN ITALY HELD BY THE ITALIAN ACOUSTICAL ASSOCIATION SINCE THE LATE 20TH CENTURY

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ABSTRACT

This paper is a brief review of the activities undertaken by the Italian Acoustical Association (AIA) during the past fifty years, covering the main stages of a long journey involving many people. The annual national congress, started in 1973, is the common thread of the AIA's activities, to which many other meetings on specific topics have been added over the years. The publishing activity is built on the AIA's journal "Rivista Italiana di Acustica", founded in 1977, and includes also the proceedings of the AIA's congress and of the other meetings on specific topics.

The paper wishes to be not celebratory, but rather a tangible testimony of the efforts made by the AIA's members for the development and progress of acoustics in Italy since the late 20th century and for the cooperation between the Italian acoustic community and the international one. The growing presence of young acousticians in the AIA's initiatives in recent years bodes well for a prolific and successful future.

Keywords: *Italian Acoustical Association, activity timeline, diffusion of acoustics.*

1. INTRODUCTION

The Italian Acoustical Association (AIA) was founded on 10th February 1972, thanks to the farsighted initiative of 16 Italian acousticians. The promoter was Amedeo Giacomini,

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director of the Institute of Acoustics "O.M. Corbino" of the Italian National Research Council, who was the first AIA president. The other founders were from the University "La Sapienza" in Rome, the University of Perugia, the "Ugo Bordonini" Foundation in Rome and the National Electrotechnical Institute "G. Ferraris" in Turin.

As stated in its by-laws, AIA is a non-profit scientific association aimed to promote in Italy the study on acoustics in the research, standardization, industrial, professional and educational activities, as well as to increase the society awareness on acoustics.

In pursuing these objectives, AIA has carried out a wide activity throughout the past fifty years, including its annual national congress, seminars on specific topics, often organized by the AIA's Technical Groups, the AIA's journal "Rivista Italiana di Acustica" and, more recently, webinars at outreach level and for professional and training credits, as well as cooperation with other national and international associations.

2. THE ANNUAL NATIONAL CONGRESS AND SPECIALIZED MEETINGS

The first AIA annual national congress was held in Rome on May 1973. After that, the congress has been regularly organized every year and, so far, hosted in 32 cities distributed almost in all Italian regions. Sessions on traditional topics are usually attended by 180 participants, on average, during three days. This event is the main occasion for Italian acousticians to meet together and share not only their scientific and professional expertise, but even to strengthen their relationship, as happens during the social dinner. The general assembly of AIA members takes place during the congress and often, immediately before and/or after the congress, meetings on specific current topics are organized.



In addition to the technical and social activities, the congress program includes the award ceremony of the AIA prizes granted to the best degree (the Giacomini award) and PhD dissertations (the Sacerdote award) on acoustics by young people, as well as the best poster shown at the congress (the Barducci award).

The proceedings collect the texts of all the presented papers, sometimes in full or, more recently, in extended abstract version. They are regularly published with the International Standard Book Number ISBN code and represent an important reference for Italian acousticians, and also show the development of their activities over the years on all the topics of acoustics.

The AIA activity throughout the year is not limited to the national congress, but includes other meetings and events dedicated to specific topics, among the many phonetics and speech, classroom acoustics, environmental acoustics, noise and vibration in the working environment, building acoustics, industrial noise and vibrations, architectural acoustics, musical acoustics, bioacoustics, soundscape, acoustic materials, and so forth. These specialized meetings have been often organized by the AIA Technical Groups focused on specific topics, as reported in Tab. 1. These meetings have been often structured in invited papers and panel discussion and/or round table. Even for these events the proceedings have been published with the ISBN code and contribute to the dissemination of the knowledge on acoustics in Italy.

Table 1. The AIA's Technical Groups.

Acronym	Topic
GFS	Phonetics and speech
GAM	Musical acoustics
GAA	Environmental acoustics
GAE	Building acoustics
GAL	Noise and vibration in the working environment

3. PUBLISHING AND DISSEMINATION

In addition to the publication of the proceedings, in 1977 AIA started to publish its journal, named "Rivista Italiana di Acustica" RIA. The promoter was Italo Barducci, AIA president at that time.

The journal aims to promote and spread the knowledge of acoustics and to encourage the exchange of information between those who, in Italy or in foreign countries, study and work on this topic. To this end, the journal publishes review papers and tutorial by well-known specialists,

original research articles and technical notes. All texts are usually in Italian, although not excluding foreign languages, preferably English. A section is dedicated to news from AIA and other national and international acoustic associations, including a calendar of main scientific events. Over the years, the fields of interest have been expanded and diversified into scientific research articles, technological and innovative technical applications, review articles, technical notes, case studies and measurement campaigns, insights into the practical experiences, regulations and legislative implications of acoustics and its different applications.

All submitted papers are evaluated by a double blinded peer review process.

The journal, published with its International Standard Serial Number ISSN code, has been modified over the years to make it more efficient in dissemination and to increase the interest of readers. Thus, from the original print version, changed three times in the format and periodicity, nowadays the journal is available online under open access license and it is included in the Directory of Open Access Journals, a search engine linking more than 10,000 open journals in 134 countries, opening the RIA to a wide readership without any restrictions and payment.

All the articles published from 1977 up to 2011 are available in electronic version and indexed by author, topic and volumes.

3.1 Surfing the web

Since 2000, AIA is on the web with its domain to reach the greatest number of users and provide update information. The website is regularly renovated and maintained to implement a user-friendly interface and to assist in the management of administrative issues and the organization of the events, including the national congress.

At present, 30 visits and more than 210 pages visualized per day, 3200 registers users and more than 5000 documents downloaded prove the importance and the efficiency of this tool for dissemination. The AIA members have also access to the archive of the INCE-USA publications.

A section of the website is dedicated to the INAD-Italy activities, a group of AIA members organizing the International Noise Awareness Day in Italy to promote the awareness of the long-term noise exposure hazard and to counteract its effects both on hearing and, more generally, on public health. The event involves schools at different levels to educate children to sound and soundscape listening, jointly with other schools in the world.

Furthermore, the website has been an essential tool during the restrictions issued to limit the spread of COVID-19

pandemic that forced AIA to stop its activities in presence, like the national congress and other meetings. This notwithstanding, AIA has taken steps to implement new formats to continue its dissemination activities. Thus, from October 2020 webinars have been organized with an innovative and outreach approach, young speakers and duration limited to 1 hour at lunch break, to stimulate the interest and awareness of people on current topics in acoustics. This initiative has been very successful, more than 100 attendees on average at each webinar, and it has been extended to other webinars jointly organized with other national associations on topics of common interest. The recording of each webinar is also available on the AIA channel on YouTube.

Webinar of longer duration, usually half day, with traditional structure of lectures by invited speakers are also offered and, for some of these, professional and training credits are granted on request of attendees.

Among the several documents available in the website (e.g., the national congress proceedings), the AIA newsletter

provides update information to all the AIA members and registered users.

3.2 Social media and communication

In the efforts of being in steps with the evolving times and considering the role of social media played especially for young people, AIA is present on this communication tool to inform on its activities. At present there are 1000 followers on Facebook, 350 on Twitter and 1200 links on LinkedIn (with more than 200 like), with a potential readership of the news published on these media of more than 6,000 users.

Among the AIA followers on Twitter, there are the press offices of national and international public institutions on environmental protection, standardization bodies, professionals and associations of manufacturers, users and consumers.

Figure 1 reports a timeline of the broad range of the AIA activities carried out in these 50 years.



Figure 1. The timeline of the broad range of the AIA activities carried out in past 50 years.

4. INTERNATIONAL COOPERATION

In fulfilling its statutory objectives, AIA has been and is active at international level too. Indeed, in 1972, AIA was among the associations co-founding the Federation of Acoustical Societies of Europe (FASE). On behalf of this

institution, in 1981 AIA organized and hosted in Venice the 4th FASE Symposium on Acoustics and Speech.

Since 1972, AIA is member of the International Commission for Acoustics (ICA) and, on behalf of this institution, in 2001 organized and hosted in Rome the 17th International Congress on Acoustics.

In 1983 AIA joined the International Institute of Noise Control Engineering (I-INCE). In 1986 AIA, during its national congress in Sorrento, was twinned with the Sociedad Española de Acústica.

In 1992 AIA was among the 12 associations founding the European Acoustics Association (EAA) which replaced the FASE. On behalf of this institution, AIA has organized two congresses:

- in 2003 the 5th European Conference on Noise Control (Euronoise), hosted in Naples with the theme “The European challenge for a better sound environment”;
- in 2023, twenty years later, the 10th EAA Convention Forum Acusticum, hosted in Turin with the theme “Acoustics for a green world”, preceded by the EAA Summer School.

Furthermore, from 2008 to 2019 AIA had in charge the management of the EAA product “Documenta Acustica”.

In 2013 AIA jointly with the German Acoustical Society (Deutsche Gesellschaft für Akustik, DEGA) organized and hosted in Merano, Italy, the EAA Euroregio Conference and the EAA Winter School for young acousticians.

In 2011 AIA has signed an agreement with the International Institute of Acoustics and Vibration (IIAV) and, on behalf of this institution, has organized and hosted in 2015 in Florence the 22nd International Congress on Sound and Vibration (ICSV22).

Further international events, sponsored by the above organizations and organized on behalf of other institutions, have been carried out by AIA. Among these:

- in 1995 the 18th International Congress for Noise Abatement in Bologna, for the Association Internazionale Contre le Bruit (AICB);
- in 2007 the 11th International Conference on Hand-Arm Vibration in Bologna;
- in 2015 the symposium “The science of Acoustics serving the Food, the Nutrition and the Environment. From protection system to innovative technologies for agriculture and fisheries”, held in Milan within the EXPO 2015.

Some AIA members have been appointed of managerial positions in all the above organizations over the years.

Figure 2 outlines the main international events above mentioned.



Figure 2. The main international events organized by AIA.

5. CONCLUSIONS

This brief overview of the broad range of AIA activities does not want to be celebratory, but rather wishes to thank all its members who, voluntarily, by their valuable contributions

enable to go ahead with accomplishing the statutory objectives and make AIA a lively and exciting community, well connected with other national and international associations. The growing presence of young acousticians in the AIA initiatives bodes well for a prolific and successful future.