



FOREWORD

A warm welcome to the participants of the tenth edition of the International Workshop MAVEBA!

The MAVEBA Workshop was born in 1999 and is proposed every two years as a multidisciplinary meeting for researchers working in the fields of bioengineering, medicine, psychology, linguistics, singing and related ones, with applications ranging from the infant to the elder.

The goal of MAVEBA is to bring together experts in the areas of human voice to share their knowledge and recent results with anyone who is interested in this multifaceted subject. As evidenced by the list of participants, the scientific community that meets in Firenze on this occasion comes from all over the world, confirming that the study of the human voice, our main means of communication, has no geographical boundaries.

Indeed, the study of the human voice has multiple facets, ranging from the pathologies and malformations of the phonatory apparatus, to the linguistic and phonetic aspects, also related to the emotional state, and to the ability and techniques of singing. MAVEBA is in fact not a purely technological and clinical meeting, as evidenced by the aims and topics dealt with in the various sessions, as artistic aspects are always a relevant part of it.

The 10th Workshop MAVEBA is organized into seven Sections, devoted to the following research subjects:

Session I: VOICE QUALITY ASSESSMENT
Session II: VOICE QUALITY MONITORING
Session III: VOICE AND NEUROCOGNITION
Session IV: VOICE AND SPEECH IN NEUROLOGY
Session V-VII: VOCAL FOLDS DYNAMICS

From the list above, Sessions concern topics that have been debated over the years, but over the years enriched by new scientific findings and technological innovations.

The first Session is about the objective measure of voice quality, that is the measure, assessment and classification of voice irregularities. This topic is closely related to a deep understanding of the dynamics of vocal folds.

Indeed, the last three Sessions deal with vocal folds dynamics, trying to give a rigorous explanation of one of the most complex and varied mechanisms of the human body, not yet fully exploited: our vocal folds are the source of the infinite range of sounds that make each of us unique and unrepeatable.

The subject of the link between voice, neurological disorders and emotional states is of great and increasing interest and is the topic of Sessions III and IV. The neurological problems of premature infants and language development at birth will be addressed, and innovative methods will be proposed for the study of relationships between voice and emotional or pathological states in adults and the elderly.

Another Session addresses the theme of voice quality monitoring, which is becoming increasingly popular thanks to developments in smartphone technology and software for the possibility of remote patient-clinician interaction. An additional Round Table: "Voice and speech processors: ready for global deployment in mobile devices?" is also dedicated to this topic, highlighting the industry's interest in the development of new technologies for the objective analysis of voice.

The subject of all Session is inherently multidisciplinary, promoting increasing collaboration between specialists from different disciplines.

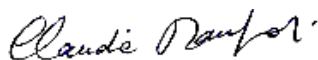
After nearly twenty years, again and as its peculiar feature, the congress venue is in the beautiful city of Firenze that, with its worldwide renowned historical Renaissance heritage, over the years becomes increasingly dynamic, welcoming and rich of events, not only artistic but also scientific and technological such as the MAVEBA Workshop.

The Opening Ceremony is offered in the Aula Magna of the Florentine University with a welcome address by the Rector Prof. Luigi Dei, who is also a keen connoisseur of music and singing. The participants will enjoy the beauty of the Aula Magna of the Rectorate located in the city center, commonly not accessible to the public. Artistic entertainment will be generously offered during the Congress by an actor and a flute player, and at the Luigi Cherubini Music Conservatory, showing the charm and versatility of voice and music. Finally, participants and accompanying persons will visit the Fortepiano Academy, a “hidden treasure” in the so called Diladdarno, perhaps a less known but full of charm district on the left bank of the Arno river. The Fortepiano Academy collects antique pianos and performs restoration in the annexed workshop.

Finally, I wish to thank the anonymous referees who devoted time and expertise in the review of the papers collected in this volume of the MAVEBA Proceedings. I am also very grateful to colleagues for their availability in chairing sessions and Round Tables. Special thanks to Dr. Philippe Dejonckere who coordinated the Round Tables with his usual precision and efficiency.

And, last but not least, I thank my co-workers Alice, Alessandro, Sara, Maria Sole, Gianandrea and my students, who generously devoted time and energy to the organization of this event. I hope that participants will find MAVEBA 2017 scientifically useful in the pleasant Florentine Christmas atmosphere.

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