



**MAVEBA**  
**2023**  
Firenze, Italy

## **FOREWORD**

This book of Proceedings includes the contributions presented at the 13<sup>th</sup> International Workshop on Models and Analysis of Vocal Emissions for Biomedical Applications – MAVEBA 2023, held in Firenze from 12 to 13 September, 2023. The previous edition of MAVEBA, held in December 2021 was celebrated in mixed mode just one year after the COVID-19 pandemic: a demonstration of strength and continuity despite the difficulties, which allowed us to meet once again from all over the World.

The series of MAVEBA International Workshops started in 1999 and is continuously proposed every two years as a multidisciplinary meeting. It concerns the study of the human voice both from the methodological point of view and its biomedical applications. The aim is that of assessing reliable procedures for objective and quantitative definition of levels of voice disorders, singing voice parameters, newborn cry features, vocal fold and vocal tract modelling and mechanics. It welcomes contributions ranging from fundamental research and advanced technologies, with emphasis on translational research, the link with the “real” complex world of the human being.

This 13<sup>th</sup> Workshop will offer again the participants an interdisciplinary platform for presenting and sharing knowledge and recent results in this multifaceted subject that involves bioengineers, otolaryngologists, phoniaticians, neurologists, logopaedicians, linguistics, singers, actors, and any specialist in related fields, with applications ranging from the newborn to the elderly.

The papers presented at MAVEBA 2023 are divided into four Sessions:

**SESSION I – BIOMECHANICS AND MODELS**

**SESSION II – VOCAL FOLDS AND VOCAL TRACT**

**SESSION III – SINGING, DRAMA AND VOICE QUALITY**

**SESSION IV – TOOLS AND METHODS FOR SPEECH AND VOICE ANALYSIS**

The Workshop also includes two stimulating Round Tables, respectively organized by Prof. Johan Sundberg and Prof. Philippe DeJonckere:

**ROUND TABLE I: ACOUSTIC AND PHYSIOLOGICAL ASPECTS OF SINGING**

Moderator: J. Sundberg

Panelists: S. Capobianco, N. Henrich Bernardoni, M. Kob

**ROUND TABLE II: FOCUSING ON VOICE ONSET: A CRITICAL MOMENT OF PHONATION. FROM BASIC SCIENCE TO THERAPY**

Moderator: P. H. DeJonckere

Panelists: J. Sundberg, G. Cantarella, M. Kob, P. Aichinger

Moreover, a couple of Sessions are devoted to a **STUDENT COMPETITION**: the winner will be granted by a prize offered by the Journal Bioengineering (MDPI), an international, scientific, peer-reviewed, open access journal.

Last but not least, Prof. Dejonckere will give the following exciting lecture:

**THE «VIRTUAL MUSEUM OF PHONIATRICS»: A GUIDED TOUR BY THE CURATOR-IN-CHIEF P.H.DEJONCKERE**

### **ACKNOWLEDGEMENTS**

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Thanks also to my Department, which supplied the congress material, to the FCRF for the economic contribution, to UNIFI, to the World Voice Day and to La Voce Artistica for the advertising on their respective websites.

Finally, a sincere and friendly thanks to the Scaramuzzi Team for their professionalism, that supported me for many years in this adventure. But above all I thank all the participants who, with their presence, wanted to be next to me once again. They stimulated the discussion and helped to propose new research themes and methodologies of analysis in the continuously evolving field of the study of the human voice.

*Claudia Manfredi*

MAVEBA 2023 Chair

Antonio Lanatà – Local organizing Committee

Lorenzo Frassinetti - Local organizing Committee