# NEW MUSIC CONCEPTS

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EDITOR

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# 3RD INTERNATIONAL CONFERENCE ON NEW MUSIC CONCEPTS
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# Preface

This volume contains accepted papers presented at the 3rd International Conference on New Music Concepts (ICNMC 2016) held on 7-8 July I Hong Kong. The aim of ICNMC is to bring together leading academic scientists, researchers, engineers, and scholar students to exchange and share their experiences, new ideas, and research re- sults about all aspects of Music Studies, and discuss the practical challenges encounte- red and the solutions adopted.

The works included in these proceedings can be useful for researchers, Ph.D. and gra- duate students in optimization theory and knowledge engineering elds. It is the hope of the editor that readers can nd many inspiring ideas and use them to their research. Many such challenges are suggested by particular approaches and models presented in the proceedings.

The third edition of ICNMC was organized by Music Academy "Studio Musica" that is af liated with Conservatorio di Musica "Benedetto Marcello" of Venice. The ICNMC conference is the new conference and our main focus is to make it one of the prestigious and quali ed conferences. Thus, the selection process was very compe- titive, and unfortunately many high-quality papers could not be accepted. This year we received 31 submissions from 14 different countries. Every paper received at least three reviews. After that, 7 regular papers were accepted: the acceptance rate of the regular paper was only 23%.

We would like to thank all authors, who contributed to the success of the conferen- ce and to this book. Special thanks go to the members of the International Technical Program Committee for their contribution to keeping the high quality of the selected papers.

Finally, we cordially thanks ABEditore for support and publishing this volume. We hope that ICNMC 2016 signi cantly contributes to the ful lment of the academic excellence and leads to greater success of ICNMC events in the future.


July 2016                                                                 Michele Della Ventura

# Keynote Lectures

## Audio Literacy for Music Students: Issues and Solutions

*Christopher J. Keyes*

Hong Kong Baptist University

Hong Kong

**Brief Bio**

Christopher J. Keyes (b. 1963) began his career as a pianist, winning many competitions and later making his "dou-ble-debut" in Carnegie Hall as both soloist and guest composer with the New York Youth Symphony. He continued his musical training at the Eastman School of Music, completing his doctorate in 1992. His major composition teach-ers include Joseph Schwantner, Samuel Adler, Christopher Rouse, and Robert Morris. Among his numerous awards are a Rudolf Nissim award for best orhestral work by a living ASCAP member, the Eastman Szernovsky Award, sev-eral ASCAP Grants to Young Composers, and numerous scholarships including the University of California Under-graduate Research Fellowship in Physics. His compositions have been performed and broadcast in over 30 countries world -wide.

Since the late 1990s his work has focused on electro-acoustic music, multi-channel audio, and more recently com-puter graphics as mediums to expand the possibilities of acoustic instruments in concert. He is currently a sProfes-sor at Hong Kong Baptist University where he directs the Electro-acoustic Music Centre and the Laboratory for Im-mersive Arts and Technology.

**Abstract**

The increasing importance of 21st century music students being literate in audio technology must not be underestimated. Acquiring the knowledge and skills to use technologies creatively and fluently may further their careers in ways we may not yet imagine. However, the lack basic scientific knowledge and the non-comprehension of even the most basic scientific concepts can be a formidable obstacle for many music students. Other students may be well versed in audio technology on a lower, programming/patching level, but be completely unfamiliar with the equipment and professional standards of audio in formal concert settings and or for professional recordings that may greatly help disseminate their work.

In this study we introduced mobile applications specifically designed to target these pedagogical issues. This presentation will demonstrate these new pedagogical apps and discuss what we know so far about their effectiveness.

# Detection of Historical Period in Symbolic Music Text

*Michele della Ventura*

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Italy

**Brief Bio**

Michele Della Ventura, professor of Music Technology, is a learning expert, researcher and instructional designer. His research interests include correlation between music and mathematics with a particular emphasis on artificial intelligence research in the field of computer-aided analysis of tonal music; intelligent systems; enhancing teaching and learning with technology; assessment for learning and strategies and models for the effective integration of technology into the curriculum at all academic levels. He is the author of several articles presented at many conferences and published in international science magazines and high school textbooks (also featured at the International Book Salon of Turin in 2012). He proofreads articles and is a member of scientific committees in International Conferences. He was invited as keynote speaker to International Conferences in Italy, Austria, Canada, China, Czech Republic, France, Germany, Hong Kong, Ireland, Japan, Romania, Singapore, Spain, UK,. Michele Della Ventura has also consulted on Big Data and Semantic Technology projects in Italy. Some of the projects include indexation of the symbolic level of musical text. He is currently involved in several researches related to technology supported learning for dyslexic students, learning through the use of social media and handheld technologies in a CLIL classroom and technology supported student's music analysis and composition. He teaches Music Informatics in University courses at Music Academies and Conservatories and Musical Technologies in Music High Schools.

**Abstract**

Despite the various studies on computer-aided musical analysis, there have been relatively few attempts at trying to locate, by means of analysis, a given melody in a certain stylistic period (Baroque, Classical, Romantic or Contemporary). The main problem is that a compositional style of a certain historic period is difficult to formalize. This study presents a model of analysis based on the theories of Warren Weaver and Claude Elwood Shannon, able to progressively explore the symbolic level of a melody, identifying the historic period on the basis of the information that it carries. The concept of information has already been used for several years now in linguistic analysis and it has also been applied to musical language. This approach was dealt with on the melodic level, omitting concepts like tonality, modulation and moreover rhythm. The efficiency of the model was verified by analyzing a series of melodies by different authors and from different times (trying to range through the different compositional techniques by means of a unique analysis methodology) emphasizing both the strong points and the weak points of the approach.

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