Preface

This volume contains the full research papers of the *2nd International Conference on Music and Artificial Intelligence* (ICMAI 02), held in St. Cecilia's Hall, Edinburgh, UK, 12–14 September 2002. The conference was jointly organized by the Faculty of Music and the Division of Informatics, University of Edinburgh.

Each of the papers in this volume was refereed by at least three reviewers from the Program Committee. Additional papers were accepted as Work-in-Progress reports, published separately by the Division of Informatics of the University of Edinburgh. The conference program also included round-table discussions, electronic music concerts, early keyboard intrument demonstrations, and various social events.

The focus of the conference was on the interplay between musical theory and practice on the one hand and techniques and methods from Artificial Intelligence, including computational cognitive modeling of musical processes, on the other. We are especially interested in issues of musical representation and analysis, associated algorithms, and the evaluation of musical artefacts.

Music presents many challenges for AI and Informatics in general. While the analogies with natural language and with vision are productive, music requires novel solutions to its own representational and algorithmic problems. For the musician, work in this area contributes towards musicological study, composition, performance, interactive systems, and sound synthesis.

Three distinguished scholars in the area, Mira Balaban, Jean-Claude Risset, and Antonio Camurri, agreed to give the invited keynotes. These talks covered different features of musical experience and its relation to Artificial Intelligence, namely musical concepts, composition, and performance. More specifically, Jean-Claude Risset's topic was *Musical Composition and Artificial Intelligence: Some Precedents and Prospects*, Mira Balaban's was *Structure and Interpretation of Music Concepts – Music from a Computational Perspective*, and Antonio Camurri's was *Computational Models of Expressive Gesture*.

The papers in the conference dealt with a wide range of aspects of current research, including structural, harmonic, and reductional music analysis, pattern representation and discovery in both monophonic and polyphonic music, music perception of melody and rhythm, the relation between music and natural language, similarity and categorization, music and intonation, musical expression and performance, sound processing, sound classifications, commercial applications, and music on the web.

July 2002   Christina Anagnostopoulou
                                                            Miguel Ferrand
                                                              Alan Smaill

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Invited Speakers

Mira Balaban (Ben-Gurion University, Israel)
Antonio Camurri (University of Genoa, Italy)
Jean-Claude Risset (Laboratoire de Méchanique et d'Acoustique, France)