Preface

The 5th Biennial International Conference for Mathematics and Computation in Music (MCM 2015) took place June 22–25, 2015, at Queen Mary University of London, UK, co-hosted by the School of Electronic Engineering and Computer Science (Centre for Digital Music) and the School of Mathematical Sciences. As the flagship conference of the Society for Mathematics and Computation in Music (SMCM), MCM 2015 provided a dedicated platform for the communication and exchange of ideas among researchers in mathematics, informatics, music theory, composition, musicology, and related disciplines. It brought together researchers from around the world who combine mathematics or computation with music theory, music analysis, composition, and performance.

This year's program – full details at http://mcm2015.qmul.ac.uk – featured a number of distinguished keynote speakers, including Andrée Ehresmann (who spoke on contemporary mathematical approaches to creative systems), Emilia Gómez (who spoke on music technologies in classical orchestral music concerts), Gareth Loy (who spoke on steps toward a theory of musical interest), and Ge Wang (who spoke on the art of designing computer music), and a film (*From Circles to Hyperspheres, Part III*) by Gilles Baroin and Hugues Seress.

The program also emphasized performances of real music related to the theoretical discussions. A noontime concert, Blood and Tango, presented a new adaptation of Gareth Loy's *Blood from a Stone*, composed in 1992 for Max Matthew's electronic violin and performed at MCM 2015 by Laurel Pardue, followed by Susanne Beer and Ian Pressland's divergent interpretations of Piazzolla's *Le Grand Tango* for cello and piano, each accompanied by Elaine Chew. An evening concert, Geometries and Gestures (Gege), featured Tom Johnson's *Rational Melodies* performed on flute by Carlos Vaquero, and musical illustrations of chord geometries in Italian popular music performed by Moreno Andreatta (SMCM Vice President), and of hypergestures in free jazz improvisations by Guerino Mazzola (SMCM President).

The chapters in this book correspond to the papers and posters presented at the conference following a careful double-blind peer-review process. We received 64 submissions from 108 authors across 19 different countries. Each submission was assigned at least three reviewers for double-blind review. A paper was accepted only if a majority of its reviewers recommended it for acceptance. The format of each accepted paper (long or short paper) was also decided on the basis of the recommendations of the majority of the paper's reviewers. Submissions were accepted in two categories: long papers (with a limit of 12 pages) for oral presentation at the conference and short papers (with a limit of six pages) for poster presentation at the conference. A total of 24 long papers and 14 short papers were accepted following review.

Finally, we are grateful to the London Mathematical Society, the Institute of Musical Research, the Engineering and Physical Sciences Research Council, and the Society for Mathematics and Computation in Music for their generous support for, and promotion of, the conference.

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