
About This Issue

This special issue is dedicated to Max Mathews (b. 1926), who over a half-century ago invented the digital synthesis of music. Our editorial consultant Tae Hong Park served as a guest editor for the articles about Max Mathews in this issue. As described further in his editor's notes (which follow the Table of Contents), he spent a number of days with Max Mathews, interviewing him and studying the materials in his archives.

To complement this issue's interview, Mr. Park also solicited manuscripts from four composers who are both old friends of Mr. Mathews and themselves well-known contributors to the early development of computer music: Jean-Claude Risset, Hubert Howe, John Chowning, and John Appleton. The articles serve as a testament to Max Mathews's influence. Mr. Park argues that Max Mathews can actually be considered

the father of electronic music (given the engineering definition of "electronic," which is more circumscribed than many lay people realize). Indeed, in an editorial aside inserted in the interview, Mr. Park relays an observation from Mr. Risset that whereas people sometimes mistakenly assume that Max Mathews's digital "unit generators" were inspired by modular analog synthesizers, the influence was more likely in the opposite direction.

This issue also contains one article on an unrelated topic. In that article, Dimitrios Tzimeas and Eleni Mangina of University College Dublin present their technique for using genetic algorithms in music composition. Whereas research on genetic algorithms often focuses on efficiently finding an optimal solution, the authors stress the importance of exploration, rather than optimization,

in creative applications such as music composition. The authors' method simulates a critically damped oscillator to calculate the coefficients of the genetic algorithm's fitness function. Graphs and musical examples illustrate their approach.

Edited as usual by James Harley, the Reviews section in this issue is independent of the special issue's theme. The book reviews cover a significant anthology from Cambridge University Press on electronic music and a volume from MIT Press that seeks to shed light on music by drawing on evolutionary biology, linguistic theory, and psychology. Also reviewed are compact discs by composers Matthew Ostrowski and Frances White, as well as a major music-industry trade show. Product announcements, edited by Margaret Cahill, conclude the issue.

—Douglas Keislar

Front cover. Max Mathews at his home in San Francisco in May 2008. (Photo by Tae Hong Park.)

Back cover. Max Mathews standing next to an IBM mainframe computer at Bell Laboratories in New Jersey. (Courtesy of Max Mathews.)