

Librería  
*Bonilla y Asociados*  
desde 1950



**Título:** Musimathics Vol. 2 The Mathematical Foundations Of Music

**Autor:** Loy Gerath

**Precio:** \$512.00

**Editorial:**

**Año:** 2011

**Tema:**

**Edición:**

**Sinopsis**

**ISBN:** 9780262516563

"Mathematics can be as effortless as humming a tune, if you know the tune," writes Gareth Loy. In Musimathics, Loy teaches us the tune, providing a friendly and spirited tour of the mathematics of music--a commonsense, self-contained introduction for the nonspecialist reader. Volume 2 of Musimathics continues the story of music engineering begun in volume 1, focusing on the digital and computational domain. Loy goes deeper into the mathematics of music and sound, beginning with digital audio, sampling, and binary numbers, as well as complex numbers and how they simplify representation of musical signals. Chapters cover the Fourier transform, convolution, filtering, resonance, the wave equation, acoustical systems, sound synthesis, the short time Fourier transform, and the wavelet transform. These subjects provide the theoretical underpinnings of today's music technology. The material in volume 1 is all preparatory to the subjects presented in this volume, although either volume can be read independently. Cross-references to volume 1 are provided for concepts introduced in the earlier volume, and additional mathematical orientation is offered where necessary. The topics are all subjects that contemporary composers, musicians, and music engineers have found to be important. The examples given are all practical problems in music and audio. The level of scholarship and the pedagogical approach also make Musimathics ideal for classroom use. Additional material can be found at a companion web site.