In Western Civilization **Mathematics** and ***Music*** have a long and interesting history in common, with several interactions, traditionally associated with the name of Pythagoras but also with a significant number of other mathematicians, like Leibniz, for instance. Mathematical models can be found for almost all levels of musical activities from composition to sound production by traditional instruments or by digital means. Modern music theory has been incorporating more and more mathematical content during the last decades. This book offers a journey into recent work relating music and mathematics. It contains a large variety of articles, covering the historical aspects, the influence of logic and mathematical thought in composition, perception and understanding of music and the computational aspects of musical sound processing. The authors illustrate the rich and deep interactions that exist between Mathematics and Music.

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