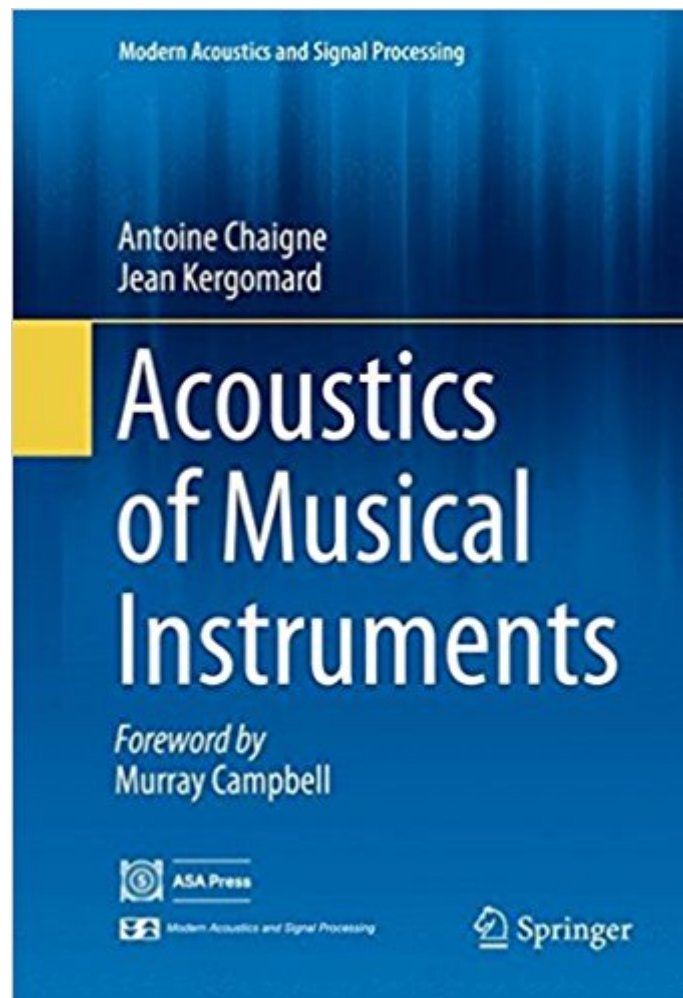




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# Acoustics Of Musical Instruments (Modern Acoustics And Signal Processing)



## Synopsis

This book, the first English-language translation of *Acoustique des instruments de musique*, Second Edition, presents the necessary foundations for understanding the complex physical phenomena involved in musical instruments. What is the function of the labium in a flute? Which features of an instrument allow us to make a clear audible distinction between a clarinet and a trumpet? With the help of numerous examples, these questions are addressed in detail. The authors focus in particular on the significant results obtained in the field during the last fifteen years. Their goal is to show that elementary physical models can be used with benefit for various applications in sound synthesis, instrument making, and sound recording. The book is primarily addressed to graduate students and researchers; however it could also be of interest for engineers, musicians, craftsmen, and music lovers who wish to learn about the basics of musical acoustics.

## Book Information

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## Customer Reviews

“This book is a great repository of state of the art knowledge. It is a handbook for looking-up concepts, derivations and mathematical methodologies currently developed and employed in the field of musical acoustics. This book is a handbook and a great reference for researchers and PhD level graduate students. This book will definitely become a classic like the one by Fletcher and Rossing. (Wilfried Kausel, Euracoustics.org, April,

2017)“Antoine Chaigne and Jean Kergomard have applied mathematical rigor with comprehensive scope, and the result is remarkable. The text and math are lucid throughout and should be easily understood by readers with a basic grasp of mechanics. The authors are justified in recommending the book to students at master’s and doctorate levels [and] researchers, engineers and other physicists with a strong interest in music. Each of those groups will find the information they need in *Acoustics of Musical Instruments*.” (Barry Greenhut, *Physics Today*, April, 2017)“Each author has extensive research experience, a publication record of note, familiarity with the literature, and interaction with French and international colleagues. *Acoustics of Musical Instruments* provides a quantitative analysis of many instruments found in the classical repertoire. The text will be of use to players, including students and instructors, and those concerned with the physical production of sound from these instruments, including makers of real and simulated instruments.” (William Strong, *Journal of the Audio Engineering Society*, Vol. 65 (1-2), January, 2017)

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