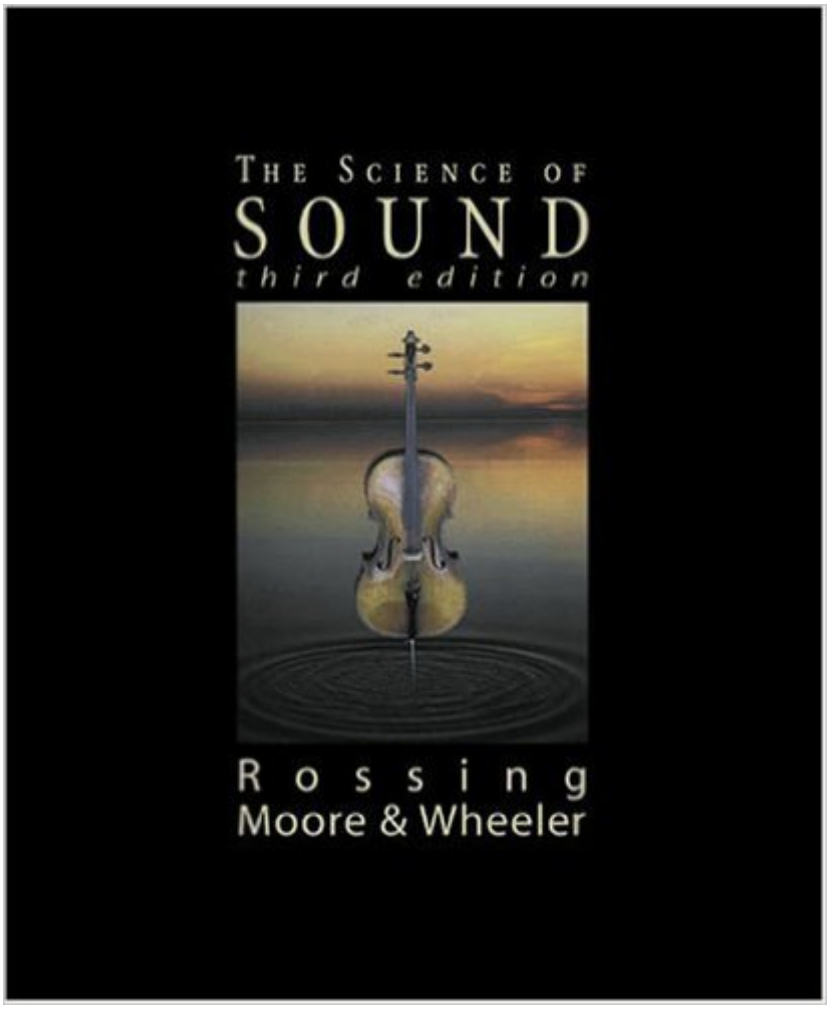
The Science Of Sound, 3rd Edition



Synopsis

The Science of Sound is widely recognized as the leading textbook in the field. It provides an excellent introduction to acoustics for readers without college physics or a strong background in mathematics. In the Third Edition, Richard Moore and Paul Wheeler join Tom Rossing in updating The Science of Sound to include a wide range of important technological developments in the field of acoustics. New exercises and review questions have been added to the end of each chapter to help readers study the material. For college instructors and students.

Book Information

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Customer Reviews

I have taught a course entitled "Acoustics for Musicians and Recording Engineers" to Engineering, Music, and Film majors using Rossing’s THE SCIENCE OF SOUND. He has toned down the equations enough that the students aren’t groaning, yet he’s remained true to the interdisciplinary nature of acoustics as a pursuit of physics, psychology, math, and engineering. The structure of the book provides a wonderful outline for the course and it has been an invaluable resource for both me and the students who have wished to continue with their study of acoustics.

This book should have been a classic introduction to musical acoustics. Instead, it tries to hard, is convoluted, often in error, and confuses musicians.When I taught from this book, I and the class found errors in equations, references to equations, and calculations. When undergraduates are struggling to learn, this is a very bad context.The book is so concerned with a level of comprehensiveness, that measured clarity is left out. At the same time, for the expert, it is too little.

Therefore, it appeals to neither the introductory level nor the more advanced level.I gave up using this book.

I have used this book as the primary textbook for an introductory course in the physics of music. It is at a somewhat higher level than some of its competitors (e.g. "The Acoustical Foundations of Music" by Backus) but still suitable for non-science majors with weak math backgrounds. It is the most thorough and informative book I have seen at this level. However, the students complained that it was somewhat dull. Also, the section on electronic reproduction of music is out of date--relatively little on CD's etc., and nothing on mp3 and related technologies. Still, I plan to use it again.

The book is informative and light. This is given that you do actually know some of the basics taught in freshman physics. If you're too busy doing all your sciency stuff to pick up that keyboard or violin that's been collecting dust, this may be a class that appeases you for the time being.

I have found this to be a very good reference book for just about everything about sound. It covers a tremendously wide swath, everything from singing and linguistics, to loudspeakers and microphones, hearing in humans and the anatomy of the ear, the basic physics of sound, musical instruments and how they work, acoustics, electronic music and the use of computers. There are even a few chapters on noise, its effects on humans and how to control it. And more!It's an overview, a semi-technical introduction to the study of sound. There is no way it can cover these things in any depth; in fact, there are entire books that specialize in the topics covered in any one chapter.There are several complaints in the reviews that mention the lack of depth. True enough, but there is a bibliography at the end of every chapter and, if you want something more immediate simply do a search here on the site (e.g. "digital signal processing" will bring up a number of books) and read some of the reviews. In many cases they know a lot more than I do and I find them quite useful.The main author, Thomas D. Rossing, has studied sound for many years and has a lot of books on the subject. One I will mention here is "The Physics of Musical Instruments", co-written with Neville H. Fletcher, also a longtime researcher in sound. It is a technical work for those with an engineering or science background and will give you much more depth than this book can.This is a good book for its intended audience; the subject is large and there are books on just about everything about it, some technical, some not so technical.

This book, aside from all the other negatives listed in these reviews, is written like a laundry list

without passion or insight. It is well nigh impossible for a curious person to get excited about this book. It might make a good book for "check-off" courses (you know, valves? check reeds? check, now time for the test and get your A and check off your science requirement.)

This book was required for a Musical Acoustics course. Worst textbook choice ever! Firstly, at 800 pages, it’s too thick and heavy to take to class, even in a backpack. Second, the diagrams in the textbook are really old and in black and white and hard to tell what’s going on. The book explains everything poorly. It covers so many topics that weren’t even discussed in the class. The way it explains equations is terrible, especially when four different equations in the same chapter use the same letter to mean different things. Nothing is explained in an intuitive way. If you read everything carefully twice and double it up with Wikipedia, you might grasp the concepts.Bottom line, whatever bad things that could be said about a book, I want to say about this book. But if I want to be fair, it deserves more than one star. I mean, it does cover a large amount of material, and the summaries at the end of the chapters do provide a decent overview.

I think this textbook failed to expain each of the topics. A longer explanation of the given topics (which were mostly experiments) should have been given.

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