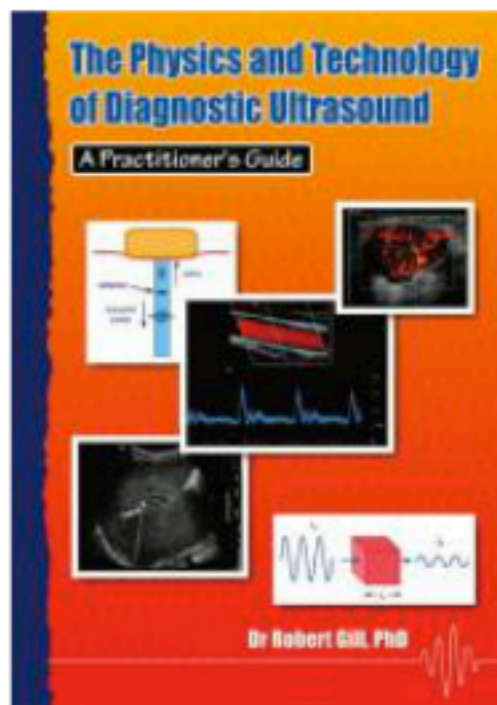


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The Physics and Technology of Diagnostic Ultrasound

Dr Rob Gill

High Frequency publishing

Rob Gill's new book *The Physics and Technology of Diagnostic Ultrasound, a Practitioner's Guide* is a rare gem in an otherwise somewhat barren landscape of ultrasound physics textbooks.

Before the publication of Rob Gill's book, students of ultrasound and qualified practitioners wanting

to expand their knowledge of physics faced some tough choices. The much loved and by far the most clinically relevant text by Roger Gent has suffered the blemishes of time and has long been out of print. Purists (including myself) still passionately cling to the last few existing copies and determined students can order the book in PDF format from ASUM.

Kremkau's book, albeit much improved in recent editions, is still a less than palatable read. If you ever wondered how herding sheep into an enclosure relates to PW Doppler, you will find the answer there, but you will probably find yourself more perplexed than enlightened. Hedrick, Hykes & Starchman provide an excellent and detailed, although in parts daunting,

review of the subject of ultrasound physics, but let's face it – how many sonographers or sonologists can get their head around statements like these: "Axial resolution does not depend on the chirp pulse duration, but rather the fractional bandwidth."

It is at this low point in our brief overview of ultrasound physics textbooks that Rob Gill comes to the rescue with his dazzling new text. His book is compact, a mere 140 pages (compared with the 400 pages of Hedrick, Hykes & Starchman). Is it possible to explain the major concepts of ultrasound physics in such a small space? Rob manages to do this with ease, clarity and stylistic elegance. The book is written in a narrative style that is easy to follow, logical and non-confronting. It is a pleasure to read and I read it from cover to cover in the space of two evenings. I enjoyed it so much that I then read it again. At the same time, the book is incredibly comprehensive covering all the topics that an ultrasound practitioner needs to know about and understand. The text is complemented by innumerable, beautifully crafted illustrations and ultrasound images. The book lives up to its promise as truly a practitioner's guide. It not only serves to educate the reader about ultrasound concepts, but more importantly it brings together theory and practice in one harmonious package with plenty of reference to the real world of clinical ultrasound. In my opinion, this book should be a part of the reference library of every ultrasound department and is an absolute must-read for all students, practicing sonographers and ultrasound educators. Get it today.

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