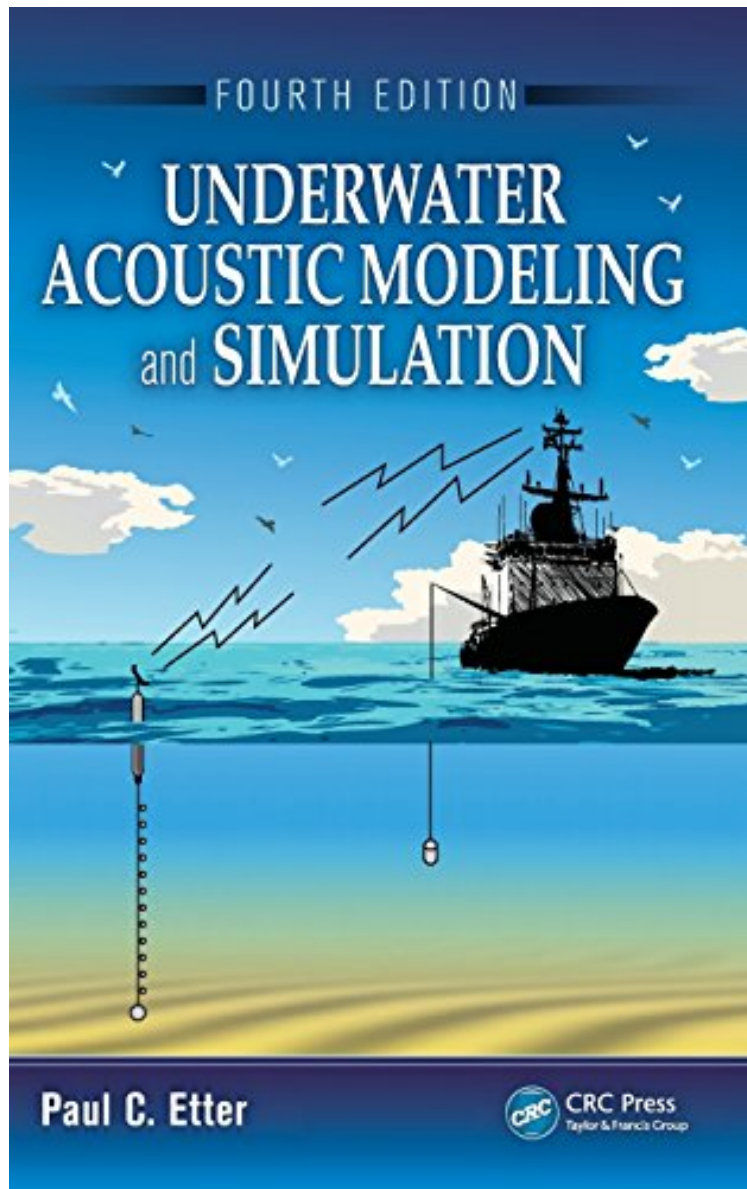


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Paul C. Etter : Underwater Acoustic Modeling and Simulation, Fourth Edition before purchasing it in order to gauge whether or not it would be worth my time, and all praised Underwater Acoustic Modeling and Simulation, Fourth Edition:

Underwater Acoustic Modeling and Simulation, Fourth Edition continues to provide the most authoritative overview of currently available propagation, noise, reverberation, and sonar-performance models. This fourth edition of a bestseller discusses the fundamental processes involved in simulating the performance of underwater acoustic systems and emphasizes the importance of applying the proper modeling resources to simulate the behavior of sound in virtual ocean environments. New to the Fourth Edition Extensive new material that addresses recent advances in inverse techniques and marine-mammal protection Problem sets in each chapter Updated and expanded inventories of available models Designed for readers with an understanding of underwater acoustics but who are unfamiliar with the various aspects of modeling, the book includes sufficient mathematical derivations to demonstrate model formulations and provides guidelines for selecting and using the models. Examples of each type of model illustrate model formulations, model assumptions, and algorithm efficiency. Simulation case studies are also included to demonstrate practical applications. Providing a thorough source of information on modeling resources, this book examines the translation of our physical understanding of sound in the sea into mathematical models that simulate acoustic propagation, noise, and reverberation in the ocean. The text shows how these models are used to predict and diagnose the performance of complex sonar systems operating in the undersea environment.

"This is a comprehensive review of models used in underwater acoustics. It is fully up to date, but also provides information about older models (which are often still used in legacy applications). Even with the Internet and search engines at our fingertips, this is a book that should be on every underwater acoustic model-user's bookshelf, or in the next office." Dale D. Ellis, DRDC Atlantic "Etter has produced a very timely update to a whole raft of topics. The chapter on Special Applications and Inverse Techniques I find most interesting, as this introduces the theme of underwater acoustics modeling and simulation to potentially completely new audiences. Etter discusses complex topics by providing clear, well-researched explanations that are based whenever possible on real-world data and which are always insightful. a must-have addition to anyones bookshelf." Peter Ward, Kongsberg Maritime Ltd. "Paul C. Etter's 2013 fourth edition of Underwater Acoustic Modeling and Simulation is an excellent and comprehensive introduction to an extremely broad spectrum of modeling methods and approaches in underwater acoustics and oceanography. While earlier editions of this text were already widely recognized as noteworthy and authoritative in the field, useful and meaningful updates and improvements have been made in this current edition and it is a highly recommended read." Robert M. Koch, Naval Undersea Warfare Center, Newport, Rhode Island, USA, from Noise Control Engineering Journal About the Author Paul C. Etter has worked in ocean-atmosphere physics and environmental acoustics for the past 40 years, including as an active duty ASW officer for the U.S. Navy. He is the author and coauthor of more than 200 technical reports, professional papers, and books addressing environmental measurement technology, underwater acoustics, and physical oceanography. He received his B.S. in physics and his M.S. in oceanography from Texas AM University.