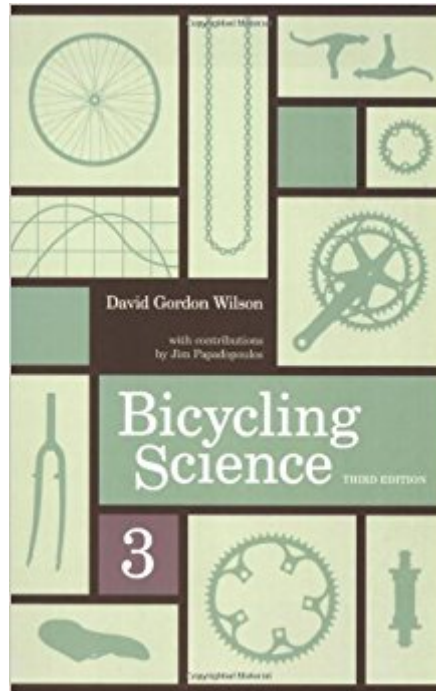




The book was found

Bicycling Science (MIT Press)



Synopsis

The bicycle is almost unique among human-powered machines in that it uses human muscles in a near-optimum way. This new edition of the bible of bicycle builders and bicyclists provides just about everything you could want to know about the history of bicycles, how human beings propel them, what makes them go faster, and what keeps them from going even faster. The scientific and engineering information is of interest not only to designers and builders of bicycles and other human-powered vehicles but also to competitive cyclists, bicycle commuters, and recreational cyclists. The third edition begins with a brief history of bicycles and bicycling that demolishes many widespread myths. This edition includes information on recent experiments and achievements in human-powered transportation, including the "ultimate human-powered vehicle," in which a supine rider in a streamlined enclosure steers by looking at a television screen connected to a small camera in the nose, reaching speeds of around 80 miles per hour. It contains completely new chapters on aerodynamics, unusual human-powered machines for use on land and in water and air, human physiology, and the future of bicycling. This edition also provides updated information on rolling drag, transmission of power from rider to wheels, braking, heat management, steering and stability, power and speed, and materials. It contains many new illustrations.

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Customer Reviews

If you want to really understand the physiology and physics that make your bike fun and fast, *Bicycling Science* is the one book you need. For more than a quarter century, it has been bicycle

technology's Rosetta stone for dedicated enthusiasts and professionals alike. The third edition expands on this tradition nicely, adding and updating valuable information. (John Schubert, Technical Editor Adventure Cyclist Magazine) *Bicycling Science*...dispels the mythology that so commonly surrounds bicycle technology, while encouraging the passion riders feel for the sport... (D.R.S. American Scientist)...full of interesting material to ponder while pedaling down the road. (Jearl Walker American Journal of Physics) In this much-modified third edition of *Bicycling Science*, David Gordon Wilson has at last compiled the definitive book about this efficient method of travel. He covers all of the bicycle's facets, from history to physics to aesthetics, in a book that is both exacting and entertaining. (Paul B. MacCready, Chairman, AeroVironment Inc.) This expanded and updated edition of a classic work offers a comprehensive introduction to bicycle technology...The information Wilson provides may be most appreciated by bicycle designers and builders, but is likely to interest anyone who competes, commutes, or just likes to have fun on two wheels. (Science) Will be cherished by the cyclist who wants to know more about what makes him and his bicycle tick. (Fred DeLong Bicycling) *Bicycling Science* is the bible for bicycle and human-powered vehicle development. It offers the reader a good understanding of the technical aspects of bicycle design, as well as a look back at where we've come from, and perhaps where we're going. Everyone involved in the bicycle industry should read this book -- a real gem. (Bob Bryant, Publisher Recumbent Cyclist News) *Bicycling Science* is the ultimate fundamentals book in cycling science. The third edition of this highly respected work is more comprehensive and better than ever -- rigorous in its scholarship, yet clear and entertaining, at times even lighthearted. Wilson sets out what is established and known on the physics of cycles and human power, and identifies open questions and directions for ongoing research. For anyone with a deep interest in cycling science and human power, this book is simply essential. (Richard Ballantine, President, International Human Powered Vehicle Association) The third edition of *Bicycling Science* is the best book of its type since Archibald Sharpe's 1896 *Bicycles and Tricycles*. Wilson's book includes excellent updates on topics ranging from bicycle history, human power, and bicycle stability to aerodynamics and mechanics. It will become the essential reference for those who really want to understand what makes a bicycle work. (Chester Kyle, Co-founder, International Human Powered Vehicle Association)

"*Bicycling Science* is the bible for bicycle and human-powered vehicle development. It offers the reader a good understanding of the technical aspects of bicycle design, as well as a look back at where we've come from, and perhaps where we're going. Everyone involved in the bicycle industry should read this book -- a real gem." --Bob Bryant, Publisher, Recumbent Cyclist News "*Bicycling*

Science* is the ultimate fundamentals book in cycling science. The third edition of this highly respected work is more comprehensive and better than ever – rigorous in its scholarship, yet clear and entertaining, at times even lighthearted. Wilson sets out what is established and known on the physics of cycles and human power, and identifies open questions and directions for ongoing research. For anyone with a deep interest in cycling science and human power, this book is simply essential." --Richard Ballantine, President, International Human Powered Vehicle Association "In this much-modified third edition of *Bicycling Science*, David Gordon Wilson has at last compiled the definitive book about this efficient method of travel. He covers all of the bicycle's facets, from history to physics to aesthetics, in a book that is both exacting and entertaining." --Paul B. MacCready, Chairman, AeroVironment Inc. "If you want to really understand the physiology and physics that make your bike fun and fast, Bicycling Science is the one book you need. For more than a quarter century, it has been bicycle technology's Rosetta stone for dedicated enthusiasts and professionals alike. The third edition expands on this tradition nicely, adding and updating valuable information." --John Schubert, Technical Editor, Adventure Cyclist Magazine "The third edition of *Bicycling Science* is the best book of its type since Archibald Sharpe's 1896 *Bicycles and Tricycles*. Wilson's book includes excellent updates on topics ranging from bicycle history, human power, and bicycle stability to aerodynamics and mechanics. It will become the essential reference for those who really want to understand what makes a bicycle work." --Chester Kyle, Co-founder, International Human Powered Vehicle Association --This text refers to an out of print or unavailable edition of this title.

Excellent source of engineering information for the cyclist!

I have used this book with students since my very first days of teaching in the late seventies. Any time a project was proposed involving human-powered motion the book came off the shelf and into the hands of the curious and ambitious group. From recumbents to cargo bikes to bicycle water pumps and so much more. This book is a gem. The best reference on my shelf.

While this book will have appeal to a fairly narrow group of true bicycle enthusiasts, technicians, and researchers, it does cover the subject matter from a professional perspective, in a fully professional format. I found information in this book that I had not found from other sources, and gained additional understanding of historic work in bicycle research. It will be a bit ambitious for most people, but if you have a need to know, or a real curiosity about, what makes the bicycle such a unique machine,

this book is a great source.

One of my favourite books that combines many of my interests in one place. Very good resource if you want to gain a deeper understanding of the physics involved in cycling. I find it useful also for my son who is a cyclemaniac but not so much into maths and physics - with this book we are covering a lot of ground effortlessly.

If you are a mechanical engineer or a bicycle lover, this book is for you. If you are both this book is going to be your bible !

I found this large, dense book interesting in a few spots; mainly the section of the history of bicycles. Unfortunately, most of the rest seemed tedious and of marginal interest.

Absolutely great book! Summerizing advanced knowledge of bicycles from different perspectives.

Be warned there is a large amount of math but in my opinion often not enough algorithmic explanation BEHIND it

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