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MR4094689 65-01 68W40 90-01 90-08

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★**Algorithms from The Book.**

Society for Industrial and Applied Mathematics (*SIAM*), *Philadelphia*, *PA*, [2020],

© 2020. *xi*+214 *pp.* *ISBN* 978-1-611976-16-8

An idea of Paul Erdős about God's book, with the most beautiful mathematical proofs, was approximated by M. S. Aigner and G. M. Ziegler [*Proofs from The Book*, sixth edition, see corrected reprint of the 1998 original [MR1723092], Springer, Berlin, 2018; MR3823190; including illustrations by Karl H. Hofmann]. The same idea is picked up in the paper under review, where the author collects some of the most relevant (if not most beautiful) algorithms in the history of mathematics. There are algorithms that one would find in current basic mathematics courses (from the Euclidean algorithm to prime number testing) or numerical courses (from Newton iteration and linear algebra to optimization), or probability theory (Monte Carlo methods) but also in computer science courses (sorting, graphs, fast Fourier transform). Mathematical aspects are highlighted (including derivations and proofs). In this sense the book is different from [John MacCormick, *Nine algorithms that changed the future*, Princeton Univ. Press, 2012]. And yet, relatively little mathematics is required. What is needed is recalled in a twenty-page appendix. The author succeeds in giving a concise introduction to a great number of algorithms in a limited number of pages. The algorithms are collected in chapters that follow more or less their historical origin, so there is some history of mathematics as well. The journey starts with Babylonian and Greek mathematics, moving on to sorting and graph theory, prime numbers, several topics in linear algebra, Newton iteration and optimization, and FFT, and it ends with data mining and Monte Carlo methods. The algorithms are provided in Julia code (which can also be downloaded from the publisher's website) and each chapter ends with a set of problems asking the reader to apply existing code or to write their own code to solve a particular problem. Other problems require proving some property. So the book is also applicable as a textbook for a one-semester course. The student is, however, supposed to be sufficiently skilled in programming (that can be Julia, Matlab, or a similar language). *A. Bultheel*