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**The Riemann hypothesis: a resource for the aficionado and virtuoso alike**, ed. by Peter Borwein et al. Springer, 2008. 533p bibl index afp; ISBN 9780387721255, \$79.95. Reviewed in 2008aug CHOICE.

The Riemann hypothesis, a celebrated yet notorious unresolved conjecture in mathematics, admits many mathematically equivalent formulations, among which two stand out. One intuitive form speaks to a certain formula estimating for the number of prime numbers less than a given  $x$ , saying, roughly, that error does not infinitely often exceed a certain bound. A more esoteric form says that the Riemann zeta function does not take the value zero in a certain region of the complex plane. Though no amount of direct computation could refute the first form, mere computation could directly refute the second; therein lies some of the fascination. Though no one knows how to prove the Riemann hypothesis, experts hold strong opinions about what sort of mathematics is involved. Borwein (Simon Fraser Univ.) and others have compiled mostly classic papers contributing to the theory of the distribution of prime numbers. The book disappoints because it suppresses or breezes by speculative approaches that have recently garnered much attention, e.g., the ideas of Robert Langlands, Alain Connes, and Christopher Deninger and approaches involving random matrices. Indeed, many would guess the classic lines played out. Only time will tell. For now, this book makes the reader wish for a different sort of book. **Summing Up:** Recommended. Upper-division undergraduate through researchers/faculty. -- *D. V. Feldman, University of New Hampshire*

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