# Editor's Preface

This Handbuch occupies a unique place in the history of the theory of the distribution of prime numbers. It contains practically everything that was known in the field at the time of its original publication (1909), and has been the fountainhead of a large part of the developments since then. In their obituary of Landau [J. London Math. Soc. vol. 13 (1938) pp. 302-310] Hardy and Heilbronn wrote: "The Handbuch is probably the most important book he wrote. In it the analytic theory of numbers is presented for the first time, not as a collection of a few beautiful scattered theorems, but as a systematic science. The book transformed the subject, hitherto the hunting ground of a few adventurous heroes, into one of the most fruitful fields of research of the last thirty years."

There is little doubt that the Handbuch will remain the classical treatise for many further generations of students of prime-number theory. Although the material therein is not always "le dernier cri" at the present time, practically every section is still worth reading and is valuable for reference. Many things that are taken for granted nowadays are worked out here in leisurely detail, so that besides being useful for its specific content, the work is a sourcebook of technique. Actually, much of the material in the Second, Third, Fourth, and Fifth Books cannot be found elsewhere, except in the original papers. For example, §§ 124-130 constitute the standard reference for the functional equation and the Weierstrass product for the $L$-functions.

The text of this edition is identical with the original one, except that a few obvious misprints have been corrected. In addition two subsequent papers of Landau have been included. Also we have added a brief appendix intended to give the reader some idea of the present status of the questions treated by Landau in this work. We hope that our remarks therein are sufficiently detailed to enable the reader to know what material is up to date and what is not, and to give him some indication of where to turn for more recent results. Needless to say, we do not profess to give an exhaustive survey of all the advances made since 1909 in the theory of the distribution of prime numbers.

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