



BOOK REVIEW

NIST Handbook of Mathematical Functions, by Frank W. J. Olver, Daniel W. Lozier, Ronald F. Boisvert and Charles W. Clark (Eds), Cambridge University Press, Cambridge 2010, xv + 951pp., ISBN 978-0-521-19225-5 Hardback, ISBN 978-0-521-14063-8 Paperback.

The National Institute of Standard and Technology (NIST) Handbook of Mathematical Functions, together with its Web counterpart, the NIST Digital Library of Mathematical Functions (DLMF), is a heavily extended authoritative replacement for the well known and highly successful Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables, published in 1964 by the National Bureau of Standards, edited by M. Abramowitz and I. A. Stegun [1] (referred further as A&S Handbook). Included with every copy of the book is a CD with a searchable PDF's of each chapter.

In this book the major ingredients of the classic A&S Handbook are retained while taking advantage of new technological achievements. The online version DLMF (at <http://dlmf.nist.gov>) presents the same information along with extensions and innovative interactive features consistent with the new medium. Among these features there is the interactive capability permitting generation of tables and graphs on demand.

The new Handbook and DLMF are products of many people: editors, associate editors, authors, and validators. A summary of the responsibilities of these groups of outstanding experts is given in the Preface.

The material of the book is organized in 36 chapters. Compared to the 29 chapters of A&S book in the present edition all numerical tables, including the tables of mathematical and physical constants (collected in A&S chapters 1 and 2) are omitted. The material of all other A&S chapters is extended, updated, reorganized and displayed with appropriate internal links and references. The list of References is updated to include hundreds of the research papers and books, published since the year 1964, in particular the five Handbooks of Integrals and Series by Prudnikov,