Cambridge University Press
978-0-521-09061-2 - Generalized Hypergeometric Functions
Lucy Joan Slater
Frontmatter
More information

GENERALIZED HYPERGEOMETRIC FUNCTIONS

TO THE MEMORY OF
W. N. BAILEY

Cambridge University Press
978-0-521-09061-2 - Generalized Hypergeometric Functions
Lucy Joan Slater
Frontmatter
More information

GENERALIZED HYPERGEOMETRIC FUNCTIONS

BY
LUCY JOAN SLATER
D.LIT., PH.D. (London), PH.D. (Cambridge)
Special Appointment
Department of Applied Economics
University of Cambridge

CAMBRIDGE
AT THE UNIVERSITY PRESS
1966

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org
Information on this title: www.cambridge.org/9780521064835

First published 1966
This digitally printed version 2008

A catalogue record for this publication is available from the British Library

Library of Congress Catalogue Card Number: 66–10050

ISBN 978-0-521-06483-5 hardback
ISBN 978-0-521-09061-2 paperback

CONTENTS

4 Hypergeometric Integrals

PREFACE

This book should really be attributed to Bailey and Slater. It was Professor Bailey's intention to write a comprehensive work on hypergeometric functions, with my assistance. This present work is based in part on notes for a series of lectures which he gave in 1947–50 at Bedford College, London University. The rest of the book contains the results of my own researches into the general theory. It also covers the great advances made in the subject since 1936 when W. N. Bailey's Cambridge Tract 'Generalized Hypergeometric Series' was first published.

The theory of generalized hypergeometric functions is fundamental in the field of Mathematical Physics, since the general functions studied here contain as special cases all the commonly used functions of analysis. The present work should prove of use and interest to all Mathematical Analysts and Theoretical Physicists. The generalized Gauss function is also used increasingly in Mathematical Statistics, and the basic analogues of the Gauss functions have many interesting applications in the field of Number Theory.

I should like to thank Dr Theo Chaundy for a very careful reading of the manuscript, and several helpful comments.

L.J.S.

Cambridge
June, 1964