## TABLE OF CONTENTS

A Brief History and Exposition of the Fundamental Theory of Fractional Calculus, BERTRAM ROSS, University of New Haven,	
West Haven, Connecticut	1
The Use in Mathematical Physics of Erdélyi-Kober Operators and of Some of Their Generalizations, IAN NAISMITH SNEDDON,	
University of Glasgow, Glasgow, Scotland	37
The Weyl Fractional Calculus, KENNETH S. MILLER, Riverside Research Institute, New York, N.Y	80
H-R Transform in Two Dimensions and Some of Its Applications to Partial Differential Equations, MOHAMMED ALI AL-BASSAM, University of Kuwait, State of Kuwait	91
Inequalities Via Fractional Integration, RICHARD ASKEY,	-
University of Wisconsin, Madison, Wisconsin	106
An Access to Fractional Differentiation Via Fractional Difference Quotients, PAUL L. BUTZER and URSULA WESTPHAL, Technological University of Aachen, Aachen, Germany	116
A Family of Integral Representations for the Solution of the Diffusion Equation, JAMES A. DONALDSON, Howard University, Washington, D.C.	146
Fractional Integrals of Generalized Functions, ARTHUR ERDÉLYI, University of Edinburgh, Edinburgh, Scotland.	151
The Fractional Derivative and Entire Functions, MARVIN C. GAER, University of Delaware and LEE A. RUBEL, University of Illinois, Urbana, Illinois.	171
	1/1
Formulas of the Dirichlet-Mehler Type, GEORGE GASPER, Northwestern University, Evanston, Illinois	207
A Child's Garden of Special Functions, THEODORE PARKER HIGGINS, Boeing Aerospace Co., Seattle, Washington	216
An Algebraic Definition of Fractional Differentiation, PETER  D. JOHNSON, JR., Emory University, Atlanta, Gorgia	226

Generalized Poisson Integrals and Regularity of Functions,	
HI KOS ARLIDO, KOMATCH. University of Tales I	32
Fractional Spaces of Temperate Distribution, JAN KUCERA,	
Washington State University, Pullman, Washington 24	19
Applications of Fractional Calculus to Spherical (Radial)	
Probability Models and Generalizations, ANDRE G. LAURENT,	
Wayne State University, Detroit, Michigan 25	6
A Problem of Hyperstereology, Andre G. Laurent 26	7
A Hypergeometric Integral Equation, E. RUSSELL LOVE,	
University of Melbourne, Parkville, Australia 27	2
Application of Fractional Differentiation to the Modeling	
of Hodograph Linearities, Douglas E. HATCH and J. RICHARD	
SHANEBROOK, Union College, Schenectady, New York 28	9
Fractional Calculus in the Operator Field of Generalized	
Functions, RAIMOND A. STRUBLE, North Carolina State	
University, Raleigh, North Carolina 29	4
A Functional Relation, WILLIAM L. WAINWRIGHT,	
University of Colorado, Boulder, Colorado	8
On Moments of Probability Distribution Functions, STEPHEN	
J. WOLFE, University of Delaware, Newark, Delaware 300	6
Fractional Integration of Fundamental Solutions, DAVID H.	
WOOD , Nato Saclant ASW Research Center	7
Fundamental Properties of Fractional Derivatives via	
Pochhammer Integrals, JEAN L. LAVOIE and R. TREMBLAY,	
Université Laval, Québec, Québec Canada, and THOMAS JOSEPH	
OSLER, Glassboro State College, Glassboro, New Jersey 323	3
On the Recent Trends in the Development, Theory and Applica-	
tions of Fractional Calculus, MIKLÓS MIKOLÁS, Budapest	
University of Technology, Hungary	7
Open Questions for Research, THOMAS J. OSLER 376	j