

CONTENTS

	Page
Foreword.	v
Preface	vii
Electromagnetic theory and geometrical optics MORRIS KLINE, Institute of Mathematical Sciences, New York University	3
Fields excited in a receiving-type antenna F.J. TISCHER, Ohio State University	33
The pulse solution connected with the Sommerfeld problem for a dipole in the interface between two dielectrics HENDRICUS BREMMER, Philips Research Laboratories, Eindhoven, Netherlands	39
The mathematical foundations of diffraction theory CALVIN H. WILCOX, California Institute of Technology. .	65
Function-theoretic aspects of diffraction theory ALBERT E. HEINS, University of Michigan.	99
Abstract operator methods in electromagnetic diffraction N. MARCUVITZ, Microwave Research Institute, Polytechnic Institute of Brooklyn	109
Diffraction by polygonal cylinders JOSEPH KELLER, Institute of Mathematical Sciences, New York University	129
A mathematical model for diffraction by convex surfaces N. A. LOGAN and K. S. YEE, Missile Systems Division, Lockheed Aircraft Corp., Sunnyvale, California.	139

	Page
The quasi-static radar cross sections of complex bodies of radiation KEEVE M. SIEGEL, The Radiation Laboratory, University of Michigan.	181
Dipoles in a dissipative media RONOLD W.P. KING, Harvard University.	199
The propagation of electromagnetic waves along the earth's surface JAMES R. WAIT, National Bureau of Standards	243
Far field amplitudes and inverse diffraction theory SAMUEL N. KARP, Institute of Mathematical Sciences, New York University	291
Propagation in a non-homogeneous medium BERNARD FRIEDMAN, Department of Mathematics, University of California, Berkeley	301
Some characteristics of electromagnetic wave beams GEORG GOUBAU, U.S.Army Signal Research & Development Laboratory, Fort Monmouth, New Jersey	311
Integral equation perturbation methods in low-frequency diffraction B. NOBLE, The Royal College of Science and Technology, Glasgow, Scotland	323
Scattering of waves by two objects VICTOR TWERSKY, Sylvania Electronic Defense Laboratories, Mountain View, California	361
Index.	391