

Table of Contents

Chapter I	Formulation of some Improperly Posed Problems of Mathematical Physics	
§ 1	Improperly Posed Problems in Metric Spaces	1
§ 2	A Probability Approach to Improperly Posed Problems . . .	8
Chapter II	Analytic Continuation	
§ 1	Analytic Continuation of a Function of One Complex Variable from a Part of the Boundary of the Region of Regularity	13
§ 2	The Cauchy Problem for the Laplace Equation	18
§ 3	Determination of an Analytic Function from its Values on a Set Inside the Domain of Regularity	22
§ 4	Analytic Continuation of a Function of Two Real Variables	32
§ 5	Analytic Continuation of Harmonic Functions from a Circle	38
§ 6	Analytic Continuation of Harmonic Function with Cylindrical Symmetry	42
Chapter III	Inverse Problems for Differential Equations	
§ 1	The Inverse Problem for a Newtonian Potential	45
§ 2	A Class of Nonlinear Integral Equations	55
§ 3	Inverse Problems for Some Non-Newtonian Potentials . . .	62
§ 4	An Inverse Problem for the Wave Equation	63
§ 5	On a Class of Inverse Problems for Differential Equations .	65
	Bibliography	70