

Librería
Bonilla y Asociados
desde 1950



Título: The Logarithmic Potential And Other Monographs

Autor: Griffith Conrad Evans, Gilbert Ames Bliss, And Edward Kasne **Precio:** Desconocido

Editorial: **Año:** 1980

Tema: **Edición:** 1ª

Sinopsis **ISBN:** 9780828403054

The volume contains the following monographs:

The Logarithmic Potential by Evans
Fundamental Existence Theorems by Bliss
Differential-Geometric Aspects of Dynamics by Kasner

All three monographs were originally published by the AMS and are now available in this single volume from AMS Chelsea Publishing.

Readership

Graduate students and research mathematicians.

Table of Contents

Preliminary Concepts. Stieltjes Integrals and Fourier Series

1 Functions of limited variation; 2 Continuation of the preceding; 3 Integrals with respect to a function of limited variation; 4 Note on the second law of the mean; 5 Classical theorems on integrals and limits of integrals; 6 The limits of Stieltjes integrals; 7 Note on Lebesgue integrals; 8 Convergence of Fourier series; 9 Summability of series

Functions Harmonic Within a Circle

10 Preliminary theorems; 11 A preliminary result; 12 Note on integral identities; 13 Digression: Functions of points and of point sets; 14 Properties of the Poisson-Stieltjes integral; 15 Continuation of the preceding: Behaviour of $u(r, \theta)$ in the neighborhood of the boundary; 16 The Poisson integral: $F(\theta)$ absolutely continuous

Librería
Bonilla y Asociados
desde 1950



Necessary and Sufficient Conditions. The Dirichlet Problems for the Circle

17 Fundamental theorem and lemma; 18 Proof of fundamental theorem; 19 Special cases of the Poisson integral; 20 The Dirichlet problem and its extension

Potentials of a Single Layer and the Neumann Problem

21 The Stieltjes integral for potentials of a single layer; 22 Necessary and sufficient conditions; 23 Further properties; 24 The Neumann problems; 25 General points of view; 26 Digression: Physical interpretation of a general distribution of mass; 27 Cauchy's integral formula

General Simply Connected Plane Regions and the Order of Their Boundary Points

28 Conformal transformations and general regions; 29 Invariant forms of conditions (i), (ii) etc.; 30 Invariant forms of conclusions; 31 Order of boundary points; 32 Integrals on the boundary and the Dirichlet problems; 33 Special cases of the condition (ii). The continuous boundary value problem; 34 A new continuous boundary value problem; 35 The generalized Neumann problem in the general region

Plane Regions of Finite Connectivity

36 Functions harmonic outside a circle; 37 The multiply connected region bounded by $n+1$ distinct circles; 38 Representation in terms of the Green's function; 39 Boundary integrals and Stieltjes integral equations; 40 General regions of finite connectivity. Isolated point boundaries; 41 Annular regions. Determination of the functions $F_0(?)$ and $F_1(?)$; 42 Uniqueness of the representation of Theorem 3 for S

Related Problems

43 A simple discontinuous boundary value problem; 44 Continuous boundary value problems; 45 Regions with continuous boundaries; 46 Regions with rectifiable boundaries; 47 Regions of infinite connectivity; 48 Remarks on necessary and sufficient conditions; 49 Convergence in the mean of positive order less than one; 50 Integro-differential equations of Bôcher type