

P R E F A C E

The Theory of Univalent Functions is an old subject, born around the turn of the century; yet it remains an active field of current research. Progress has been rapid, especially in recent years. The purpose of this dissertation is to present a modern overview to give a full account of the more classical aspects of the subject, while emphasising the recent developments.

Most of this dissertation is concerned with the class S of functions holomorphic and univalent in the unit disc and normalised in a standard way. One of the major problems of the field is Bieberbach Conjecture dating back to the year 1916, which asserts that the Taylor coefficients of each function of the class S satisfy the inequality $|a_n| \leq n$. For many years this famous problem stood as challenge and inspired the development of ingenious methods. Recently this conjecture has been settled.

The first chapter of the dissertation contains several definitions of the subclasses of the univalent functions and statements of known results occurring in the course of our investigations.

The second chapter is mainly concerned with the study of univalence of integrals and in particular, the determination of the span of the index parameter; under different subclasses of univalent functions.

The third chapter is interwoven with the study of radii of starlikeness and convexity of univalent functions for different varieties of subclasses of S .

Most of the results are shown to be sharp.

Each chapter precedes by one page abstract and ends with the list of references.

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