MATHEMATICAL PROGRAMMING IN COMPLEX SPACE: A COMPREHENSIVE BIBLIOGRAPHY

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In recent years a number of papers have extended various aspects of mathematical programming theory in real space to complex space. Although extremum problems involving complex functions of complex variables have been studied for a long time, as pioneer of mathematical programming in complex space is considered to be N. Levinson. In [108], N. Levinson generalized Farkas' theorem at complex space and formulated duality theorems for a particular case of linear programming problem in complex space. In [15], A. Ben-Israel formulated general problem of linear programming in complex space and established duality theorems analogous to those of linear programming in real space. General mathematical programming in complex space is formulated by R. A. Abrams [1]. In [46], D. I. Duca introduced the notion of efficient point of a complex function and formulated the vectorial programming problem in complex space.

This paper lists, alphabetically by first author, over 160 papers dealing with mathematical programming in complex space. The bibliography covers the years 1966—1986. The papers are either published in some form (in technical journals or as internal reports) or are available only as typewritten manuscripts (for example as doctoral theses or as papers presented at scientific sessions). If a work was first published as an internal report, and then later in a technical journal, both publications are cited, since it may occasionally be easier for anyone seeking literature to find a copy of the internal report.

The abbreviations of the journals agree with those prescribed in Mathematical Reviews and Zentralblatt für Mathematik.

Although a period of twenty years elapsed since the first paper in complex space, important results were meanwhile obtained. One might expect that, in the future, various other results in the field of mathematical programming in the real space will be generalized to complex space

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