BOOKREVIEWS

On Approximation Theory, Proceedings of the Conference held in the Mathematical Research Institute at Oberwolfach, Black Forest, August 4-10, 1963. Edited by P. L. Butzer and J. Korevaar. International Series of Numerical Mathematics, vol. 5, Birkhäuser-Verlag, Basel, 1964, 261 p., SFr. 28. -.

This book contains the proceedings of the first conference on approximation theory held in the well-known conference centre in Oberwolfach. The lectures were given by specialists in approximation theory, functional analysis, integral-transformations, divergent series, almost periodic functional analysis, integral-transformations, divergent series, almost periodic functions and number theory. The number of lectures amounted to twenty, six papers have been added later. After each lecture an account of the discussions is given. There is also a section containing unsolved problems.

Since each paper will be reviewed separately in Mathematical Reviews it seems to be appropriate to make only a few general remarks. It must be regretted that there were no participants from the Soviet Union and Roumania becaus in that countries there are centres of intensive research in approximation theory. Nevertheless, the book shows the conference has been a great success. The lectures were of a high level and they gave an excellent view on current problems of approximation theory such as saturation problems, rational approximation, interpolation problems, approximation by means of differential equations and approximation in higher dimensions. It appears often that methods of functional analysis find here a very fertile area of application.

To everyone who wishes to deepen his knowledge of modern approximation theory the reading of the papers presended here is strongly recommended. The make-up of the book is in accordance with the Birkhäuser Verlag's high traditions.

P. C. Sikkema

L. S. Pontrjagin, V. G. Boltjanskii, R. V. Gamkrelidze, E. F. Mischchenko: Mathematische Theorie optimaler Prozesse, 2. Verbesserte Auflage, Aus dem Russischen übersetzt, R. Oldenbourg Verlag, München, Wien, 1967, 340 Seiten, 87 Bilder, Preis DM. 68, -.

Die Neuerscheinung der zweiten Auflage Pontrjagin's wohlbekanntes Buch beweist dass das Interesse für dieses Werk noch nicht abgenommen ist.

Obgleich in letzten Jahren weniger ausführliche Beweise für das Maximumprinzip gefunden sind wie dasjenige von Pontrjagin selbst, jedoch bleibt dieses Buch noch immer ein grundsätzlicher Beitrag zu der Theorie optimaler Prozesse.

Spezial ist die klare Behandlung der Anwendungen des Maximumprinzips bemerkenswert.

In der zweiten Auflage sind einige Verbesserungen angebracht.

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