**ABSTRACT.** This volume contains the proceedings of the International Symposium on “Parametric Optimization and Approximation”, held at the Oberwolfach Research Institute, Black Forest, October 16-22, 1983. It includes papers either on a research or of an advanced expository nature. Some of them could not actually be presented during the symposium, and are being included here by invitation. The participants came from Brazil, Bulgaria, CSSR, German Democratic Republic, Great Britain, Israel, Netherlands, South Africa, USA, and West Germany. We take the opportunity to express our thanks to all those who participated in the symposium or contributed to this volume. We also thank the Oberwolfach Mathematical Research Institute for the facilities provided.