

## PREFACE

The papers contained in this special issue were solicited at the 1986 Corvallis conference on Quadratic Forms and Real Algebraic Geometry. The conference took place on the campus of Oregon State University from July 24 to July 30, 1986. There were 96 participants and 62 lectures. The conference was funded by the National Science Foundation, the Oregon State University Research Office, the Oregon State University College of Science, and the Mathematical Science Research Institute at Berkeley. The coordinators and participants are grateful to these organizations for their support.

The conference was devoted to reuniting researchers in two fields with a common heritage. Research on the theory of ordered fields provided the impetus for many new developments in both subjects, starting in the 1970's and continuing today. A major goal of the conference was to foster interaction between areas which have recently diverged. The extent to which this goal was achieved is evidenced not only by the many "crossover" papers appearing in this issue, but by subsequent collaboration resulting from this conference.

The conference included participants from a diversity of nations. Additionally, a special effort was made to include a large number of younger mathematicians, giving them the opportunity to interact with established experts in the field. The publications in these proceedings reflect this.

All papers appearing in these proceedings were refereed. We thank all those involved in this effort for their remarkably prompt and considered responses to our badgering. We also thank Professor William Scott for the time and energy he spent producing this issue.

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