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Editorial Preface

This volume contains a selection of papers in modern operator theory and its applications. Most of them are directly related to lectures presented at the Fourteenth International Workshop on Operator Theory and its Applications (IWOTA 2003) held at the University of Cagliari, Italy, in the period of June 24–27, 2003.

The workshop, which was attended by 108 mathematicians – including a number of PhD and postdoctoral students – from 22 countries, presented eight special sessions on

- 1) control theory,
- 2) interpolation theory,
- 3) inverse scattering,
- 4) numerical estimates for operators,
- 5) numerical treatment of integral equations,
- 6) pseudodifferential operators,
- 7) realizations and transformations of analytic functions and indefinite inner product spaces, and
- 8) structured matrices.

The program consisted of 19 plenary lectures of 45 minutes and 78 lectures of 30 minutes in four parallel sessions.

The present volume reflects the wide range and rich variety of topics presented and discussed at the workshop, both within and outside the special sessions. The papers deal with inverse scattering, numerical ranges, pseudodifferential operators, numerical analysis, interpolation theory, multidimensional system theory, indefinite inner products, spectral factorization, and stationary processes.

Since in the period that the proceedings of IWOTA 2003 were being prepared, *Israel Gohberg*, the president of the IWOTA steering committee, reached the age of 75, we decided to dedicate these proceedings to *Israel Gohberg on the occasion of his 75th birthday*. All of the authors of these proceedings have joined the editors and dedicated their papers to him as well.

The Editors



Israel Gohberg, the president
of the IWOTA steering committee

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