

# The XIXth International Workshop on Operator Theory and its Applications. I

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**Abstract.** Information about the workshop and comments about the first volume of proceedings is provided.

**Mathematics Subject Classification (2000).** 15-06, 47-06.

**Keywords.** Operator theory, matrix analysis, analytic functions.

The Nineteenth International Workshop on Operator Theory and its Applications – IWOTA 2008 – took place in Williamsburg, Virginia, on the campus of the College of William and Mary, from July 22 till July 26, 2008. It was held in conjunction with the 18th International Symposium on Mathematical Theory of Networks and Systems (MTNS) in Blacksburg, Virginia (Virginia Tech, July 28–August 1, 2008) and the 9th Workshop on Numerical Ranges and Numerical Radii (July 19–July 21, 2008) at the College of William and Mary. The organizing committee of IWOTA 2008 (Ball, Bolotnikov, Helton, Rodman, Spitkovsky) served also as editors of the proceedings.

IWOTA 2008 celebrated the work and career of Israel Gohberg on the occasion of his 80th birthday, which actually fell on August 23, 2008. We are pleased to present this volume as a tribute to Israel Gohberg.

IWOTA 2008 was a comprehensive, inclusive conference covering many aspects of theoretical and applied operator theory. More information about the workshop can be found on its web site

<http://www.math.wm.edu/~vladi/IWOTA/IWOTA2008.htm>

There were 241 participants at IWOTA 2008, representing 30 countries, including 29 students (almost exclusively graduate students), and 20 young researchers (those who received their doctoral degrees in the year 2003 or later). The scientific program included 17 plenary speakers and 7 invited speakers who gave overview of many topics related to operator theory. The special sessions covered



Israel Gohberg at IWOTA 2008, Williamsburg, Virginia

a broad range of topics: Matrix and operator inequalities; hypercomplex operator theory; the Kadison–Singer extension problem; interpolation problems; matrix completions; moment problems; factorizations; Wiener–Hopf and Fredholm operators; structured matrices; Bezoutians, resultants, inertia theorems and spectrum localization; applications of indefinite inner product spaces; linear operators and linear systems; multivariable operator theory; composition operators; matrix polynomials; indefinite linear algebra; direct and inverse scattering transforms for integrable systems; theory, computations, and applications of spectra of operators.

We gratefully acknowledge support of IWOTA 2008 by the National Science Foundation Grant 0757364, as well as by the individual grants of some organizers, and by various entities within the College of William and Mary: Department of Mathematics, the Office of the Dean of the Faculty of Arts and Sciences, the Office of the Vice Provost for Research, and the Reves Center for International Studies. One plenary speaker has been sponsored by the International Linear Algebra Society. The organization and running of IWOTA 2008 was helped tremendously by the Conference Services of the College of William and Mary.

The present volume is the first of two volumes of proceedings of IWOTA 2008. Here, papers on operator theory, linear algebra, and analytic functions are collected. The volume also contains a commemorative article of speeches and reminiscences dedicated to Israel Gohberg. All papers (except the commemorative

article) are refereed. The second volume contains papers on systems, differential and difference equations, and mathematical physics.

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Added on December 14, 2009:

With deep sadness the editors' final act in preparing this volume is to record that Israel Gohberg passed away on October 12, 2009, aged 81. Gohberg was a great research mathematician, educator, and expositor. His visionary ideas inspired many, including the editors and quite a few contributors to the present volume.

Israel Gohberg was the driving force of iwota. He was the first and the only President of the Steering Committee. In iwota, just as in his other endeavors, Gohberg's charisma, warmth, judgement and stature lead to the lively community we have today.

He will be dearly missed.

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