# OPERATOR THEORY AND OPERATOR ALGEBRAS

Organizers: Daniel Alpay and Orr Shalit

Ben-Gurion University of the Negev, Beer-Sheva May 21 to May 24, 2012

PROGRAM

# Acknowledgments

This conference was made possible thanks to financial support granted by the Earl Katz Chair in Algebraic System Theory and by the Center for Advanced Studies in Mathematics (CASM) of Ben-Gurion. We wish to thank the director of the CASM, Prof. Miriam Cohen, for her support.

We owe many thanks to Rutie Peled and Ina Aviv for their invaluable help in the organization of the conference.

Monday, May 21: Room -101 (Deichmann Building).

09:30-10:00: Reception + light refreshments.

10:00-10:10: Greetings,

Prof. Ronen Peretz, Head of the Department of Mathematics.

Prof. Miriam Cohen, Head of the Center for Advanced Studies in Mathematics.

10:10–10:50: Paul Fuhrmann, Controllability and observability of networks of linear systems.

11:00–11:40: Abraham Feintuch, The stable rank of subalgebras of a nest algebra.

#### LUNCH

13:40–14:20: Vladimir Bolotnikov, Weighted Bergman spaces: shift-invariant subspaces and input/state/output linear systems.

14:30–15:10: Palle Jorgensen, Analytic, algebraic, and group theoretic, tools in wavelets and filters.

#### COFFEE BREAK

15:30–16:10: Guy Salomon, Topological convolution algebras.

16:20–17:00: Eli Shamovich, Livsic overdetermined conservative systems on Lie Groups.

Tuesday, May 22: Room -101 (Deichmann Building).

09:10–9:50: Dan Volok, Rational discrete analytic functions.

10:00-10:40: Victor Katsnelson, Spectral theory of the Fourier operator truncated on the positive half-axis.

#### COFFEE BREAK

11:00–11:40: Alexander Ukhlov, Composition operators on Soboloev spaces.

11:50–12:30: Mamadou Mboup, Title TBA.

#### LUNCH

14:30–15:30: John McCarthy, Operator Monotone Functions of Several Variables (Math Department Colloquium).

#### COFFEE BREAK

15:50–16:30: Shibananda Biswas, On the curvature inequality.

16:40–17:10: David Kimsey, Multivariable matrix-valued moment problems.

# Wednesday, May 23: Room -101 (Deichmann Building).

09:10–9:50: Paul Muhly, Endomorphisms vs. Transfer Operators: What's the difference?

10:00–10:40: Aldo Lazar, Centers and centroids of  $C^*$ -algebras.

# COFFEE BREAK

11:00–11:40: David Shoikhet, Abelian averages of discrete and continuous semigroups.

11:50–12:30: Daniel Markiewicz, The even gauge group of Powers' non-spatial  $E_0$ -semigroups.

# LUNCH

 $14:30-15:10: \ {\rm Mark\ Elin},\ Extension\ operators\ in\ Geometric\ Function\ Theory.$ 

15:20–16:00: Ilan Hirshberg, Decomposable approximations of nuclear  $C^*$ -algebras.

# COFFEE BREAK

16:20–17:00: Joav Orovitz,  $C^*$ -algebras and tracial  $\mathcal{Z}$ -absorption.

# Thursday, May 24: Room -101 (Deichmann Building).

09:30–10:20: Daniel Alpay,  $Schur\ analysis\ in\ the\ quaternionic\ setting.$ 

#### COFFEE BREAK

10:40–11:10: Alon Kipnis, Chaos expansion approach for optimal prediction of Gaussian processes.

11:20–12:00: Orr Shalit, Dilation theory in finite dimensions.

# LUNCH

14:00-14:40: Izchak Lewkowicz, Interpolation of Polynomials with Symmetries on the Imaginary Axis.

14:50–15:30: Harry Dym, Trace formulas for Toeplitz-like operators.

# CONCLUDING REMARKS