

Preface

The current volume comprises contributions to the 1st Summer School in Operator Theory, held on the island of Chios, at the University of the Aegean, 25-30 July 2011. The members of the Organising Committees of this event were M. Anoussis (Samos), D. Drivaliaris (Chios), Y. Giallas (Chios), S. Karanasios (Athens), N. Karachalios (Samos) and A. Katavolos (Athens).

The School had 11 invited speakers, who gave lectures on the following topics:

M. Anoussis: *Shift operators: invariant subspaces and non-selfadjoint operator algebras*

S. Argyros: *Banach spaces with few operators*

V. Felouzis: *Logic of a quantum system and lattices of projections on Hilbert space*

K. Gavroglou: *Historical topics related to the foundations of quantum mechanics*

S. Karanasios: *An introduction to generalized inverses*

A. Katavolos: *Introduction to operator algebra theory*

E. Katsoulis: *Dynamical systems and operator algebras*

G. Kostakis: *Dynamics of linear operators*

Y.-F. Lin: *The C^* -algebra of a locally compact group*

I. G. Todorov: *Introduction to operator space theory*

N. Yannakakis: *The Laplace operator and its spectrum*

The School enjoyed the participation of 56 students or young researchers, the majority of whom were supported by the sponsors of the event: the University of the Aegean, the National Technical University of Athens, the University of Athens and the Municipality of Northern Aegean.

The current volume comprises only some of the rich variety of topics covered in the School. An invited contribution of G. Eleftherakis is also included.

The articles are expository in nature and each of them aims at a brief introduction to the respective topic. It is the hope of the Guest Editors that it can serve as an invitation to the exciting fields of Operator Theory and Operator Algebras, and their applications to, and interactions with, neighbouring areas.

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