

MATHEMATISCHES FORSCHUNGSINSTITUT OBERWOLFACH

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C*-Algebren

Organised by
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Mathematics Subject Classification (2000): 46Lxx, 19Kxx, 37-xx, 20G42, 22Dxx, 81R50, 81R60.

Introduction by the Organisers

The aim of the workshop *C*-algebras* was to bring together researchers from basically all areas related to operator algebra theory. This gives a unique opportunity to obtain a broader view of the subject and to create new interactions between researchers with different background. The organizers, Claire Anantharaman-Delaroche, Siegfried Echterhoff, Uffe Haagerup, and Dan Voiculescu took special care to invite a good number of young researchers, some of them already being leading experts in their fields. As a result, several contributions in this report are from researchers who, at the time of the workshop, were less than 30 years old.

There were 29 lectures presented at this workshop with topics from Ergodic Theory, L^2 -(co-)homology, classification of C^* -algebras, Operator Theory, von Neumann algebras, KK-theory and the Baum-Connes conjecture, quantum spaces and quantum groups, mathematical physics, non-commutative probability theory, and the theory of operator spaces. To name some special highlights we can mention the reports on recent developments in the study of “boundary actions” of quantum groups due to S. Vaes and R. Vergnioux, the new results on classification theory of amenable C^* -algebras in terms of studying algebras which are stable under tensoring with the Jiang-Su algebra \mathcal{Z} (see the lectures of A. Toms and M. Rørdam), or the report by S. Popa on recent progress in the study of strong rigidity for II_1 factors associated to equivalence relations. But this is only

a very small selection of the interesting lectures on new results presented at this workshop.

It is a pleasure for the organizers of the conference to use this opportunity to thank all participants of the workshop for their contributions—either in lectures held at the workshop or in stimulating discussions following the lectures. We also thank the Mathematisches Forschungsinstitut Oberwolfach for providing a great environment and strong support for organizing this conference. Special thanks go to the very competent and helpful staff of the institute and to the chef de cuisine.