Selected Papers on Noncommutative Geometry



Alexander Rosenberg

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$\rm CONTENTS^1$

Foreword

- 1 Skew PBS monads and representations
- 2 Noncommutative local algebra and representations of certain rings of mathematical physics
- 3 Noncommutative schemes
- 4 Noncommutative affine schemes
- 5 Reconstruction of schemes
- 6 Spectra related with localizations
- 7 Spectra of noncommutative spaces
- 8 Spectra of 'spaces' represented by abelian categories
- 9 Spectra, associated points, and representations
- 10 Noncommutative spaces and schemes
- 11 Noncommutative spaces and flat descent
- 12 Noncommutative 'Spaces' and 'Stacks'
- 13 Underlying spaces of noncommutative schemes
- 14 Noncommutative Grassmannians and related constructions
- 15 Noncommutative spaces
- 16 Noncommutative stacks
- 17 Differential calculus in noncommutative algebraic geometry I. D-calculus on noncommutative rings
- 18 Differential calculus in noncommutative algebraic geometry I. D-calculus in the braided ease. The localization of quantized enveloping algebras
- 19 Kashiwara theorem for hyperbolic algebras
- 20 Homological algebra of noncommutative 'spaces'
- 21 Topics in Noncommutative Algebraic Geometry, Homological Algebra and K-theory
- 22 Geometry of right exact spaces

¹ Preprints 17,18, 19 were published jointly with V. Lunts. Preprints 11, 14, 15, 16 appeared as MPI preprints joint with M. Kontsevich. According to Konstevich, he only participated in several conversations on the topic. The entire writing, including proofs was due to A. Rosenberg.

FOREWORD

This volume contains selected works of a remarkable mathematician, Alexander Rosenberg, who died in 2012, unexpectedly for all of us.

Rosenberg was one of the leading figures in the area of noncommutative algebraic geometry. In one of our conversations, he told me that the notion of spectrum of abelian categories and the related Reconstruction Theorem were probably his best achievements. He was modest, of course. Among other foundational works, experts in the field mention his approach to the theory of D-modules on noncommutative spaces, and more recently, his ideas about algebraic K-theory.

For many years he had been developing a big "theory of noncommutative spaces", mainly using the categorical approach. Part of the work was done in collaboration with other people, such as Valery Lunts and Maxim Kontsevich.

The current volume is based on preprints published by the Max-Planck Institute for Mathematics in Bonn. We hope that grouping the selected papers together will give the reader an opportunity to understand the broadness and deepness of Rosenberg's ideas.

Yan Soibelman Professor, Mathematics Kansas State University March 12, 2014