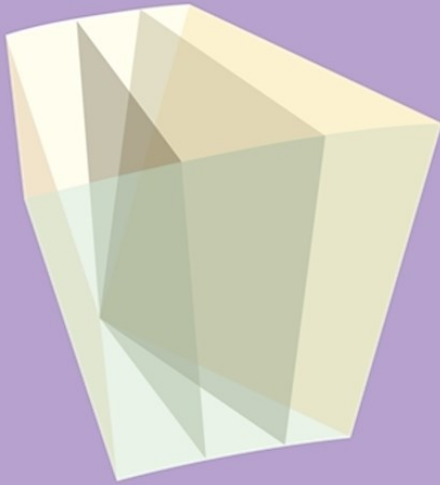


**Selected Papers on  
Noncommutative  
Geometry**



**Alexander Rosenberg**

# Selected Papers On Noncommutative Geometry

Alexander Rosenberg

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Alexander Rosenberg

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<sup>1</sup> 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 Kontsevich, 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.

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March 12, 2014