Klaus W. Roggenkamp was born on 24 December 1940. After having studied mathematics in Gießen (FRG) from 1960 to 1964 he went to the University of Illinois at Urbana-Champaign where he met Irving Reiner, whose influence became a decisive factor in Klaus Roggenkamp's scientific work and thinking. After a short period on research positions in Urbana and Montreal he became professor in Bielefeld (FRG). Four years later he was appointed full professor at the University of Stuttgart (FRG) where he holds the chair of algebra. Klaus Roggenkamp is a member of the Academy of Sciences in Erfurt. He was awarded a Dr honoris causa of Constanta University in Romania. In 1994 he gave an invited lecture at the International Congress of Mathematicians in Kyoto.

Over the last three decades, Klaus Roggenkamp has been editor of various journals and book series, including 'Mathematische Zeitschrift', 'Communications in Algebra', the 'Encyclopedia of Mathematics', and (presently) 'Algebras and Representation Theory'. He has organized several conferences, three of them in Oberwolfach. Klaus Roggenkamp has written five books, three of them with coauthors, V.Huber–Dyson, I.Reiner and M.J.Taylor. He has edited four volumes of conference proceedings. He is the author of more than 150 research articles.

When entering Klaus Roggenkamp's office the first things one notices are boxes stacked in layers on two walls and completely covering these walls. In each box one finds copies either of one of Klaus Roggenkamp's numerous articles or else of other authors' articles from one of the many areas in which he is interested. Having got information on one of these areas, he quickly manages to enter the new subject both by asking the experts questions and simultaneously by trying his own techniques on the new objects. This open-minded approach often leads to new insights, and to original and unusual ways of viewing things. And it keeps him (and his students) in touch with a large variety of disciplines to many of which Klaus Roggenkamp has made substantial contributions. We list only a few of them.

The study of integral group rings as a discipline had been largely influenced by K-theoretical methods and number theory before Klaus Roggenkamp proposed an algebraic way of thinking. In a series of joint papers, Klaus Roggenkamp and Leonard Scott studied the unit groups of integral group rings, dealing with problems centering about the celebrated 'integral isomorphism problem'. The most striking result of this research was to prove in 1986 that given a finite p-group G, then any automorphism of the group ring $\hat{\mathbb{Z}}_pG$ over the p-adic numbers which is compatible with the augmentation may be modified by a group automorphism of G so that it is inner in $\hat{\mathbb{Z}}_pG$. This statement implies that in the case where we have two finite p-groups G and H and their group rings over the p-adic integers are isomorphic, $\hat{\mathbb{Z}}_pG \cong \hat{\mathbb{Z}}_pH$, then, up to some normalization concerning the trivial representation which may be easily achieved, the groups G and H are conjugate in the unit group of this group ring. This result was completely unexpected at that time. A conjecture of Hans Zassenhaus concerned a much weaker statement. The discoveries of Klaus Roggenkamp and Leonard Scott in this field were at once the starting point and the guideline of most developments which followed in the study of finite groups of units of integral group rings. Moreover, while proving the above conjecture of Zassenhaus for p-groups, Roggenkamp and Scott also gave a series of metabelian counterexamples to this conjecture.

Prior to his work on integral group rings, Klaus Roggenkamp was one of the driving forces behind the development of representation theory of classical orders. In

particular he proved and applied in a series of papers the existence of Auslander Reiten sequences for classical orders. Klaus Roggenkamp was a leader in this field during the whole development of the theory in the seventies and eighties. His expertise is maybe best manifested in his two Lecture Notes in Mathematics "Lattices over orders" which are the main source and the standard text in the whole area. During this time Klaus Roggenkamp and Irving Reiner organized conferences in Oberwolfach which became the meeting place for exchange and the main inspiration for the development of the field.

A series of joint papers of Klaus Roggenkamp and Karl Gruenberg centers around homological considerations of groups and connections to homological questions of group rings. In particular, the authors studied the relation module of a group, i.e. the abelianised kernel of a minimal presentation of a group. Various applications were given, among others, to questions about units in integral group rings.

Klaus Roggenkamp managed to clarify completely the structure of blocks of p-adic group rings with cyclic defect group, thus establishing an integral analogue of the celebrated theory of Brauer tree algebras. Many applications are known and more are on the way, from equivalences between derived categories to the inverse problem of Galois theory.

A new branch of representation theory is created by Klaus Roggenkamp's most recent research on higher dimensional orders. Motivated by recent developments in the representation theory of algebraic groups, algebraic combinatorics, Hecke algebras and quantum groups, Klaus Roggenkamp has started to study orders over two and higher-dimensional coefficient domains.

We congratulate Klaus Roggenkamp on his 60th birthday and hope that he neither runs out of boxes nor of wall space for new results so that we can enjoy many more of his beautiful results and original ideas in the future.

May 2000
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