

Preface

This volume forms the proceedings of a conference entitled “Recent Advances and New Directions in the Interplay of Noncommutative Algebra and Geometry”, that was held in honor of S. Paul Smith on the occasion of his 65th Birthday, at the University of Washington, Seattle, June 20-24, 2022. This conference was originally scheduled to be held in 2020, but, owing to the Covid-19 pandemic, it was postponed until 2022. The organizing committee consisted of Ken Brown, Tim Hodges, Ron Irving, Michaela Vancliff, and James Zhang.

The first article outlines some of Paul Smith’s contributions to mathematics. The subsequent articles in the volume, by some of the leading experts in the areas of noncommutative algebra, noncommutative algebraic geometry, and representation theory, reflect the wide interests of Paul. Specific topics include: Hopf algebras and quantum groups, the elliptic algebras of Feigin and Odesskii, Calabi-Yau algebras, AS-regular algebras and noncommutative algebraic geometry, representation theory and deformation theory, noncommutative ring theory and Lie theory, and more.

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We would like to express our sincere appreciation to our friend Ron Irving, who was a co-organizer of the conference, for his strong support before, during and after the conference. He was instrumental in contributing to the success of the conference with his unwavering energy, time commitment and attention to detail. We also warmly thank staff members and graduate students in the Department of Mathematics at the University of Washington for their help, especially the Department Administrator, Michael Munz, for his help and patience in processing the reimbursements to the funded conference participants. Lastly, we are grateful to the conference attendees for their interesting presentations, stimulating discussions and refreshing enthusiasm.

Ken Brown, Tim Hodges, Michaela Vancliff and James Zhang (editors)