

CONTEMPORARY MATHEMATICS

705

Representations of Algebras

17th Workshop and International Conference on
Representation of Algebras
August 10–19, 2016
Syracuse University, Syracuse, New York

Graham J. Leuschke
Frauke Bleher
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Preface

The seventeenth Workshop and International Conference on Representations of Algebras (ICRA 2016) was held August 10–19, 2016, at Syracuse University in Syracuse, NY, USA. The ICRA is a major event in the field with a long tradition, initiated at Carleton University in 1974. The ICRA is organized every other year at varying locations throughout the world; the previous iteration, ICRA 2014, was held in Sanya, China, and the next is scheduled to be held in Prague, Czech Republic, in August 2018. This was the first ICRA held in the United States.

The Scientific Advisory Committee for ICRA 2016 consisted of Luchezar Avramov (Nebraska, USA), Karin Erdmann (Oxford, UK), Birge Huisgen-Zimmermann (Santa Barbara, USA), Henning Krause (Bielefeld, Germany), Idun Reiten (NTNU, Norway), and Jerzy Weyman (Connecticut, USA). The Organizing Committee consisted of Frauke Bleher (Iowa, USA), Calin Chindris (Missouri, USA), Harm Derksen (Michigan, USA), Mark Kleiner (Syracuse, USA), Graham Leuschke (Syracuse, USA), Ralf Schiffler (Connecticut, USA), and Dan Zacharia (Syracuse, USA) (Chair).

Following the tradition of the conference series, ICRA 2016 was divided into two parts. The Workshop consisted of six short courses of three hours each, given by Claire Amiot (Grenoble), Michel Brion (Institut Fourier), Markus Linckelmann (City University London), Robert Marsh (Leeds), Julia Pevtsova (Washington), and Ryo Takahashi (Nagoya). This was followed by a five-day Conference with approximately 150 research presentations, 20 of which were plenary talks. ICRA 2016 had about 250 participants from 30 countries all over the world.

These Proceedings contain the notes of the workshop courses by Brion, Linckelmann and Takahashi as well as selected plenary conference talks and two additional invited contributions. The research areas of these notes range over associative rings and algebras, commutative algebra, algebraic geometry, category theory, group theory and combinatorics. We would like to express our appreciation to the authors who submitted contributions, as well as to the referees for their assistance.

The ICRA Prize, for outstanding work by a young mathematician working in the area of representations of algebras, was awarded to Greg Stevenson (Bielefeld), for his introduction of fundamental new concepts based on geometric ideas using the framework of triangulated categories, and to Qiu Yu (Chinese University of Hong Kong) for important contributions on the topological structure of Bridgeland stability conditions and a sequence of studies about Calabi-Yau and cluster categories. The Selection Committee consisted of Osamu Iyama, Idun Reiten, Jan Schröer, Jie Xiao, and Dan Zacharia (Chair).

We are happy to thank the National Science Foundation, the National Security Agency, the Syracuse University College of Arts & Sciences, and the Office of the

Vice President for Research for their generous financial support. We are also grateful to Syracuse University graduate students Rachel Gettinger, Casey Necheles, Eric Ottman, Robert Roy, and Joshua Stangle, as well as to Mathematics Department Administrative Assistant Kimberly Canino, for their invaluable assistance with the logistics of ICRA 2016.

Sadly, Ragnar-Olaf Buchweitz passed away before the publication of this volume, which contains one of his last papers. We dedicate this volume to his memory.

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This volume contains the proceedings of the 17th Workshop and International Conference on Representations of Algebras (ICRA 2016), held from August 10-19, 2016, at Syracuse University, Syracuse, NY.

Included are three survey articles based on short courses in the areas of commutative algebraic groups, modular group representation theory, and thick tensor ideals of bounded derived categories. Other articles represent contributions to areas in and related to representation theory, such as noncommutative resolutions, twisted commutative algebras, and upper cluster algebras.



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