



JOURNAL OF ALGEBRA

Editor-in-Chief

Michel Broué

**Editor of the section
on Computational
Algebra**

Gerhard Hiss

Founding Editor

G. Higman, 1964–1984

Editor-in-Chief

W. Feit, 1985–2000

Editorial Board

Nicolás Andruskiewitsch	Shrawan Kumar	Ronald Solomon
Luchezar L. Avramov	Kazuhiko Kurano	V. Srinivas
Paul Balmer	Gus I. Lehrer	J.T. Stafford
Eva Bayer-Fluckiger	Martin Liebeck	Gernot Stroth
Steven Dale Cutkosky	Volodymyr Mazorchuk	Bernd Ulrich
Alberto Elduque	Louis Rowen	Michel Van den Bergh
Dihua Jiang	Leonard L. Scott, Jr.	Changchang Xi
Masaki Kashiwara	Vera Serganova	Efim Zelmanov
E.I. Khukhro	Aner Shalev	

Section on Computational Algebra

Jon Carlson	Derek Holt	Emann O'Brien
John Cremona	William M. Kantor	Bruno Salvy
Patrick Dehornoy	Reinhard Laubenbacher	Seth Sullivant
Harm Derksen	Gunter Malle	Jean-Yves Thibon



Abstracted/indexed in Mathematical Reviews, Science Citation Index (ISI), Compumath Citation Index, Zentralblatt MATH, Current Contents: (PC & ES). Also covered in the abstract and citation database Scopus®. Full text available on ScienceDirect®.

CONTENTS

General Section

Finite dimensional irreducible representations of elementary unitary Lie algebras over quantum tori	1
Zhihua Chang, Yun Gao, and Yelong Zheng	
Strongly liftable schemes and the Kawamata–Viehweg vanishing in positive characteristic III	12
Qihong Xie and Jian Wu	
$Sp_{2n}(\mathbb{F}_{q^2})$-invariants in irreducible unipotent representations of $Sp_{4n}(\mathbb{F}_q)$	24
Lei Zhang	
Periodic modules over Gorenstein local rings	47
Amanda Croll	
Some cells in the weighted Coxeter group $(\tilde{\mathcal{C}}_n, \tilde{\ell}_{2n+1})$	63
Qian Huang and Jian-yi Shi	
Lie rank in groups of finite Morley rank with solvable local subgroups	82
Adrien Deloro and Éric Jaligot	
Quasi-hereditary algebras and generalized Koszul duality	96
Dag Oskar Madsen	
Hindman’s coloring theorem in arbitrary semigroups	111
Gili Golan and Boaz Tsaban	
Computational Section	
On defining characteristic representations of finite reductive groups	121
Olivier Brunat and Frank Lübeck	

The Guide for Authors appears online on the journal homepage at <http://www.elsevier.com/locate/jalgebra>

