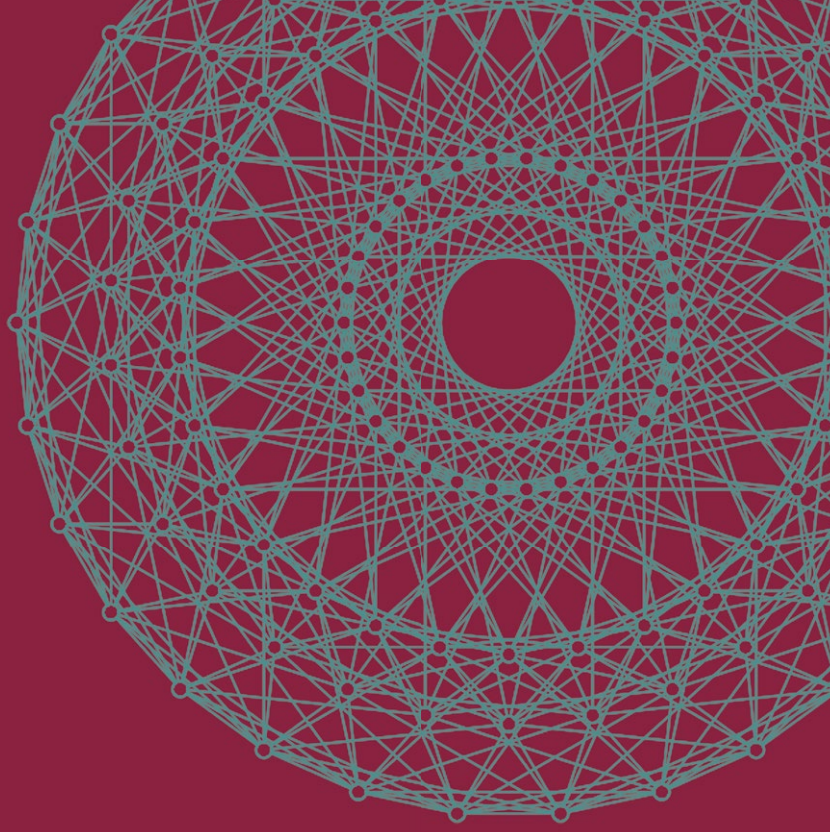


Canadian Mathematical Bulletin

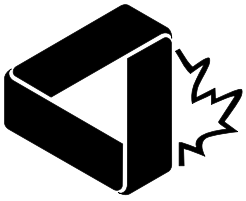
canadien de mathématiques

2026, 69/1
March / mars

Canadian Mathematical Society
Société mathématique du Canada

CAMBRIDGE UNIVERSITY PRESS

https://doi.org/10.4153/S0008439525101008 Published online by Cambridge University Press



CANADIAN MATHEMATICAL BULLETIN

BULLETIN CANADIEN DE MATHÉMATIQUES

EDITORS-IN-CHIEF / RÉDACTEURS-EN-CHEF

Antonio Lei & Javad Mashreghi

Département de mathématiques et de statistique

Université d'Ottawa & Université Laval

cmb-editors@cms.math.ca / bcm-redacteurs@smc.math.ca

ASSOCIATE EDITORS / RÉDACTEURS ASSOCIÉS

Amir Akbary
University of Lethbridge

Kathrin Bringmann
University of Cologne

Guillaume Chapuy
Université Paris Diderot

Susan Cooper
University of Manitoba

Shaun Fallat
University of Regina

Slim Ibrahim
University of Victoria

Krzysztof Kapulkin
University of Western Ontario

Rahim Moosa
University of Waterloo

Malabika Pramanik
University of British Columbia

William Ross
University of Richmond

Terry Soo
University College London

Valentino Tosatti
McGill University

Deping Ye
Memorial University of Newfoundland

Fabrizio Andreatta
Universita Studi di Milano

Lia Bronsard
McMaster University

Adam Clay
University of Manitoba

Octav Cornea
Université de Montréal

Ailana Fraser
University of British Columbia

Michael Jury
University of Florida

Alexander Kupers
University of Toronto

Monica Nevins
Université d'Ottawa

Marek Ptak
University of Agriculture in Krakow

Hadi Salmasian
Université d'Ottawa

Nicolae Strungaru
MacEwan University

Qiang (Steven) Wang
Carleton University

Yingfei Yi
University of Alberta

Hans Boden
McMaster University

Kazim Buyukboduk
University College Dublin

Benoît Collins
Université d'Ottawa

Michelle Delcourt
Toronto Metropolitan University

Philippe Gille
CNRS & University Claude Bernard

Joel Kamnitzer
McGill University

Matilde Lalin
Université de Montréal

Robert Osburn
University College Cork

Frédéric Rochon
Université du Québec à Montréal

Alistair Savage
Université d'Ottawa

Aaron Tikuisis
Université d'Ottawa

Liam Watson
University of British Columbia

© Canadian Mathematical Society / Société mathématique du Canada, 2026
All rights reserved / tous droits réservés

Suite 209, 1725 St. Laurent Blvd., Ottawa, ON K1G 3V4

ISSN 0008-4395 (Print / imprimé), 1496-4287 (Online / électronique)

Printed by Sheridan, a CJK Group Company.

The geometric figure on the cover, a four-dimensional polytope, was redrawn by Javad Mashreghi from the inside cover page of the celebrated book 'Regular Polytopes' by Harold Scott MacDonald Coxeter (1907–2003), one of the greatest geometers of the 20th century. Coxeter, a Fellow of the Royal Society of Canada and a Fellow of the Royal Society (London), joined the University of Toronto in 1936 and worked there enthusiastically for 60 years. Since 1978, the Canadian Mathematical Society has awarded the Coxeter-James Prize in his honor.

La figure géométrique sur la couverture, un polytope en dimension quatre, a été reprise par Javad Mashreghi du plat intérieur du célèbre ouvrage Regular Polytopes de Harold Scott MacDonald Coxeter (1907–2003), l'un des plus grands géomètres du XXe siècle. Membre de la Société royale du Canada et de la Royal Society (Londres), H.M.S. Coxeter s'est joint au corps professoral de l'Université de Toronto en 1936, où il a travaillé avec enthousiasme pendant 60 ans. Depuis 1978, la Société mathématique du Canada décerne le prix Coxeter-James en son honneur.

https://doi.org/10.4153/S0008439525101008 Published online by Cambridge University Press

Canadian Mathematical Bulletin / Bulletin canadien de mathématiques

In this issue / Dans ce numéro

2026, 69/1

1	A free boundary problem of competition-diffusion system with Dirichlet boundary condition	*Shijie Gao and Jingjing Cai*
21	On the Fitting ideals of anticyclotomic Selmer groups of elliptic curves with good ordinary reduction	*Chan-Ho Kim*
32	The Schur–Agler class in infinitely many variables	*Greg Knese*
51	On weaving Hilbert space frames and Riesz bases	*Animesh Bhandari*
61	Density properties of orbits for a hypercyclic operator on a Banach space	*Jian Li, Xinsheng Wang, and Jianjie Zhao*
77	Hook length inequalities for t-regular partitions in the t-aspect	*Gurinder Singh and Rupam Barman*
89	A classification of incompleteness statements	*Henry Towsner and James Walsh*
97	Bianchi modular forms and the rationality of periods	*Gradin Anderson, Peter Harrigan, Louisa Hoback, McKayah Pugh, and Tian An Wong*
116	On a theorem of Mattila in the finite p-adic setting	*Boqing Xue, Thang Pham, Quang-Hung Le, Quang-Ham Le, and Duy-Phuong Nguyen*
131	No product of two nontrivial countable-dimensional continua maps lightly into any of the factors	*Roman Pol and Mirosława Reńska*
137	B_n-sets of real and complex numbers	*Melvyn B. Nathanson*
142	Infinitely repeated partitions of Liouville numbers	*Chungwu Ho and Seth Zimmerman*
150	Regularity and multiplicity of Veronese type algebras	*Kuei-Nuan Lin and Yi-Huang Shen*
179	Non-spherical sets versus lines in Euclidean Ramsey theory	*David Conlon and Jakob Führer*
184	Contramodules for algebraic groups: the existence of mock projectives	*Dylan Johnston*
201	Infinite matroids in tropical differential algebra	*Fuensanta Aroca, Lara Bossinger, Sebastian Falkensteiner, Cristhian Garay López, Laura González-Ramírez, and Carla Valencia Negrete*
222	Bounds on some geometric functionals of high dimensional Brownian convex hulls and their inverse processes	*Hugo Panzo and Evan Socher*

https://doi.org/10.4153/S0008439525101008 Published online by Cambridge University Press

236	Asymptotic formula for shifted convolution sums involving the coefficients of an L-function	*Naveen K. Godara, Anuj Jakhar, and Kotyada Srinivas*
256	Minimal oscillation and vanishing of smooth functions	*Jean Saint Raymond*
261	Integer solutions of the generalized polynomial Pell equations and their finiteness: The quadratic case	*Akanksha Gupta and Ekata Saha*
273	Improved bounds for Serre's open image theorem	*Imin Chen and Joshua Swidinsky*
292	On perfect weakly group-theoretical modular categories	*Fengshuo Xu and Jingcheng Dong*
299	Linear relations of four conjugates of analgebraic number	*Žygimantas Baronėnas, Paulius Drungilas, and Jonas Jankauskas*
315	Asymptotic behavior for the sum of partial quotients in continued fraction expansions	*Xiao Chen, Junjie Li, Lei Shang, and Xin Zeng*
328	Absolute continuity in the reproducing kernel sense	*Robert T. W. Martin and Edward J. Timko*
344	A note on the best constant for uncentered maximal functions with measure on $\mathbb{R}$	*Zhipeng Wu and Qingdong Guo*

https://doi.org/10.4153/S0008439525101008 Published online by Cambridge University Press