# BULLETIN ISSN 0004-9727

### of the

## **AUSTRALIAN MATHEMATICAL SOCIETY**

Volume 41 Number 2				Apri	1 1990
Semigroups whose idempotents form a subsemigroup					
Jean-Camille Birget, Stuart Margolis and John Rhodes			( b)	303	161
Weakly continuous accretive operators in general Banach spaces					185
W.E. Fitzgibbon On commutativity of rings with some polynomial constraints	* *	00	9 X	100	100
Mohd. Ashraf and Murtaza A. Quadri					201
Expected number of excursions above curved boundaries by a rand	lom wa	ilk			
Fima C. Klebaner  Conserved quantities for axisymmetric cavities near boundaries		F.S. 1	* *	100	207
R. Paull and J.R. Blake					215
Maximal arcs and group divisible designs			*		240
Maximal arcs and group divisible designs Alan Rahilly		474		24	223
Contributions to computational analysis					
H-J. Dobner				100	231
Contributions to computational analysis H-J. Dobner Almost nilpotent gamma rings G.L. Booth and N.J. Groenewald					237
Inequalities between the integral means of a function		•	2.5	123	231
D. Hajela	10 10				245
Some inequalities for diophantine approximation by continued frac	tions		2.0	135	
Jingcheng Tong Hereditary and strict domains for radical classes of associative ring				0.0	249
Hereditary and strict domains for radical classes of associative ring	s				
N.R. McConnell		83	1.0	122	255
Properties of the trajectories of set-valued integrals in Banach space Nikolaos S. Papageorgiou	ces				271
Monotone clones, residual smallness and congruence distributivity	• •		* *	100	211
Ralph McKenzie					283
On Nunokawa's conjecture for multivalent functions					
Shigeyoshi Owa		55 = :	19.9	N. 191	301
The other law of the iterated logarithm for martingales R.M. Huggins					307
Multiple discrete semigroups of operations		(0)	* *	**	307
Volf Frishling		34			313
Internal completeness and injectivity of Boolean algebras in the to	pos of	M-set	s		
M. Mehdi Ebrahimi	• •		2.5	40	323
ABSTRACTS OF AUSTRALASIAN Ph.D. THESES					
New directions in convex analysis: the differentiability of convex futopological linear spaces	netion	s on			
Bernice Sharp			541	The state of	333

#### BULLETIN¹ OF THE AUSTRALIAN MATHEMATICAL SOCIETY

Editor: Alan S. Jones

Deputy Editor: Elizabeth J. Billington

Honorary Editor: B.H. Neumann

#### ASSOCIATE EDITORS

Robert S. Anderssen	P.G. Dodds	G. Huisken	G.B. Preston	
Alan L. Andrew	P. Donovan	D.C.Hunt	J.H. Rubinstein	
J. Clark	J.R. Giles	B.D. Jones	Ross Street	
B.D. Craven	J.R.J. Groves	P.E. Kloeden	G. Szekeres	
Brian A. Davey	J.A. Hempel	K.L. McAvaney	D.G. Tacon	
P. Diamond	B.D. Hughes	Sidney A. Morris	E.U. Tarafdar	
A. I. man day Poorton		N.C. Wahar		

A.J. van der Poorten N.C. Weber

#### ASSISTANT EDITORS

K.G. Smith

G.A. Chandler

#### INFORMATION FOR AUTHORS.

The BULLETIN of the Australian Mathematical Society aims at quick publication of original research in all branches of mathematics. Timely expository articles are also welcomed.

To ensure speedy publication, editorial decisions on acceptance or otherwise are taken quickly, normally within a month of receipt of the paper. Papers are accepted only after a careful evaluation by the Editor and an Associate Editor or other expert in the field. As even minor revisions are generally not permitted, authors should read carefully all the details listed below and on the inside back cover. For a paper to be acceptable for publication, not only should it contain new and interesting results but also

- (i) the exposition should be clear and attractive, and
- (ii) the manuscript should be in publishable form, without revision.

Authors should submit three clean, high quality copies to

The Editor, Bulletin of the Australian Mathematical Society, Department of Mathematics, University of Queensland,

St. Lucia, Queensland, 4067, Australia.

Unless requested at the time, material submitted to the BULLETIN will usually not be returned.

Note that each paper submitted must include an abstract and one or more classification numbers following the 1980 Mathematics Subject Classification. (1985 Revision)

#### ABSTRACTS OF PH.D. THESES.

The BULLETIN endeavours to publish abstracts of all accepted Australasian Ph.D. theses in mathematics. One restriction, however, is that the abstract must be received by the Editor within 6 months of the degree being approved.

¹ © Copyright Statement Where necessary, permission to photocopy for internal or personal use of the internal or personal use of specific clients is granted by the Treasurer, Australian Mathematical Publishing association, Inc., for libraries and other uses registered with the Copyright Clearance Center (CCC), provided that the base fee of \$A2.00 per copy of article is paid directly to CCC, 21 Congress Street, Salem, MA 01970, U.S.A. Special requests should be addressed to the Treasurer, Australian Mathematical Publishing Association, Inc., c/- Department of Mathematics, University of Queensland, St. Lucia, Qld., 4067, Australia. Serial–fee code: 0004-9727/88 \$A2.00 + 0.00.