

JOURNAL of the AUSTRALIAN MATHEMATICAL SOCIETY

Series B — Applied Mathematics

Volume 37 Part 2
OCTOBER 1995

Geometric ergodicity and quasi-stationarity in discrete-time birth-death processes	121
Erik A. van Doorn and Pauline Schrijner	
Using fractal geometry for solving divide-and-conquer recurrences	145
Simant Dube	
Stochastic maximum principle for optimal control problem of forward and backward system	172
Wensheng Xu	
Chaos in an anharmonic oscillator	186
J. R. Christie and K. Gopalsamy	
On an inequality relating to sum sets	208
C. E. M. Pearce and J. E. Pečarić	
Derivatives of addition theorems for Legendre functions	212
D. E. Winch and P. H. Roberts	
The temporal stability of a developing jet: a model problem	235
Jillian A. K. Stott and James P. Denier	
Similarity solutions for a quasilinear parabolic equation	253
Jong-Sheng Guo	
The EM response due to a plane sheet of arbitrary shape and conductivity profile	267
D. G. Hurley and P. F. Siew	

Set by TeXAdel, Adelaide, Australia.

Printed by Cushing-Malloy, Inc., Ann Arbor, Michigan, U.S.A.

THE AUSTRALIAN MATHEMATICAL SOCIETY

<i>President:</i>	Prof. D. W. ROBINSON	Department of Mathematics Australian National University ACT 0200
<i>Secretary:</i>	Prof. D. ELLIOTT	Department of Mathematics The University of Tasmania GPO Box 252C Hobart Tasmania 7001
<i>Treasurer:</i>	Dr A. HOWE	Mathematics Department Australian National University Canberra ACT 0200
<i>Membership subscriptions (for 1995)</i>	Institutions:	A\$762 (this includes all publications)
	Ordinary members:	A\$65 (A\$60 if paid before 31 Dec.95)
	Reciprocal members:	A\$33
	Reduced rate members:	A\$12
	Sustaining members:	A\$130

Reciprocity agreements: Such agreements have been made with a number of other mathematical societies. Under the agreements, members of the other societies who are not normally resident in Australia may join the Australian Mathematical Society at the rate shown.

Membership and correspondence: Applications for membership, subscriptions, changes of address or title or position, correspondence about accounts or distribution of the Society's journals, and orders for back numbers should be sent to the Treasurer. All other correspondence should be sent to the Secretary.

Members receive the Gazette free and are entitled to purchase other publications at the following annual rates (1995): Journal (Series A) A\$33, Journal (Series B) A\$25, Bulletin A\$30. For reduced rate members, the subscription prices are half those quoted.

OTHER PUBLICATIONS OF THE SOCIETY

JOURNAL of the Australian Mathematical Society, Series A (Pure Mathematics and Statistics).

Six parts will be published in 1995, cost A\$273 per year.

Editor: Dr J. GROVES, Department of Mathematics, University of Melbourne, Parkville, Vic. 3052.

BULLETIN of the Australian Mathematical Society aims at quick publication of original research in all branches of mathematics. Six parts will be published in 1995, cost A\$250 per year.

Editor: Dr A. S. JONES, University of Queensland, Qld 4072.

GAZETTE carries news items, mathematical articles of general interest, and articles on tertiary mathematics teaching. The 1995 cost is A\$48 per year.

Editor: Prof. T. M. MILLS, Department of Mathematics, La Trobe University, Bendigo, Vic. 3550.

Copyright Statement

Where necessary, permission to photocopy for internal or personal use of specific clients is granted by the Treasurer, Australian Mathematical Publishing Association, Inc., to libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of A\$2.00 per copy of article is paid directly to CCC, 27 Congress St, Salem, MA 01970, USA. Special requests should be addressed to the Treasurer, Australian Mathematical Publishing Association, Inc., Mathematics Department, Australian National University, Canberra, ACT 0200, Australia. Serial-fee code: 0334-2700/95.

©Copyright Australian Mathematical Society 1995