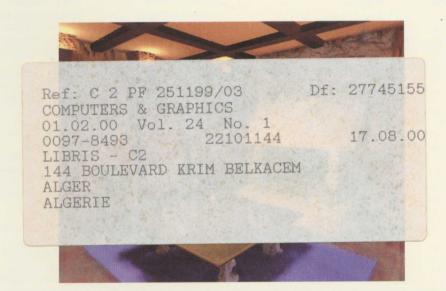
# COMPUTERS & GRAPHICS

An international journal of systems & applications in computer graphics

Algorithms and techniques for interaction, multimedia, modelling and visualization

EDITOR-IN-CHIEF: J. L. Encarnação



In this issue the special topic is

COMPUTER GRAPHICS IN RUSSIA

Guest Editor: S.V. Klimenko





### Computers & Graphics, Vol. 24, No. 1, 2000

Contents (Cont'd)

Helena T.F. Wong and Horace H.S. Ip	Virtual brush: a model-based synthesis of C calligraphy	hinese
M. Romera, G. Pastor, 1 G. Alvarez and F. Montoya  G.A. Edgar 1	Growth in complex exponential dynamics  Chaos & Graphics  The forest fractal puzzle	
Michael Frame and Shontel Meachem	Reverse bifurcations in a quartic family	
Rosalee Wolfe 1	Education  Bringing the introductory computer graphics courthe 21st century	rse into
Ken Brodlie, Nuha El-Khalili 1 and Ying Li	7 Using web-based computer graphics to teach sur	gery
Beatriz Sousa Santos	An introductory course on Visualization	
1	1 Past/Future Issues	1
1	2 List of 1999 Reviewers	
1	5 Announcements	

Technical Section

# On-line Articles Status Information System

Authors of articles which are currently in production at Elsevier can obtain the following information on the status of their article:



- general production status (in preparation, in proof, in issue)
- data of publication and offprints dispatch data
- issue, volume and page number

For more information, please refer to: http://www.elsevier.nl/oasis/introdoc.htm.



This journal is part of ContentsDirect, the *free* alerting service which sends tables of contents by e-mail for Elsevier Science books and journals. You can register for ContentsDirect online at: www.elsevier.nl/locate/contentsdirect.



# computers & graphics

## An International Journal

Website: http://www.elsevier.nl/locate/cag/ http://www.elsevier.com/locate/cag/

#### Contents

Vol. 24, No. 1, 2000

#### In this issue the special topic is COMPUTER GRAPHICS IN RUSSIA Guest Editor: S.V. Klimenko

Guest Editor: S.V. Klimenko			
	4	Computers & Graphics Best Paper Award 1998	
S.V. Klimenko	5	Computer Graphics in Russia Guest Editor's Introduction	
L.M. Mestetskii	9	Fat curves and representation of planar figures	
Stanislav Klimenko, Igor Nikitin, Valery Burkin, Vitaly Semenov, Oleg Tarlapan and Hans Hagen	23	Visualization in string theory	
Edward A. Kopylov and Kirill A. Dmitriev	31	Light propagation visualization as a tool for 3D scene analysis in lighting design	
D. Ivanov, E. Kuzmin and S. Burtsev	41	An efficient integer-based skeletonization algorithm	
Victor A. Debelov and Aleksandr M. Matsokin	53	Implementation of set operations and intersection of Bezier curves	
Valery Adzhiev, Maxim Kazakov, Alexander Pasko and Vladimir Savchenko	67	Hybrid system architecture for volume modeling	

spatial libraries

Building the navigational maps for intelligent agents

Lossless compression of large binary images in digital

(continued)

Indexed in GMT Abstr, Cam Sci Abstr, Comput Cont, Curr Cont,® Research Alert®, Curr Cont/CompuMath, Curr Cont/Eng Tech & Applied Sci. Curr Cont SCISEARCH® Data, Eng Ind, Ergon Abstr, Info Sci, Abstr, INSPEC Data, PIRA, SSSA/CISA/ECA/ISMEC

79

91

ISSN 0097-8493

TYPESET BY MACMILLAN INDIA LTD., BANGALORE-25
PRINTED IN GREAT BRITAIN BY POLESTAR WHEATONS LTD, EXETER



S. Zhukov and A. lones

Eugene Ageenko and Pasi Fränti



0, 1