

Volume 23, Number 6, December 1999

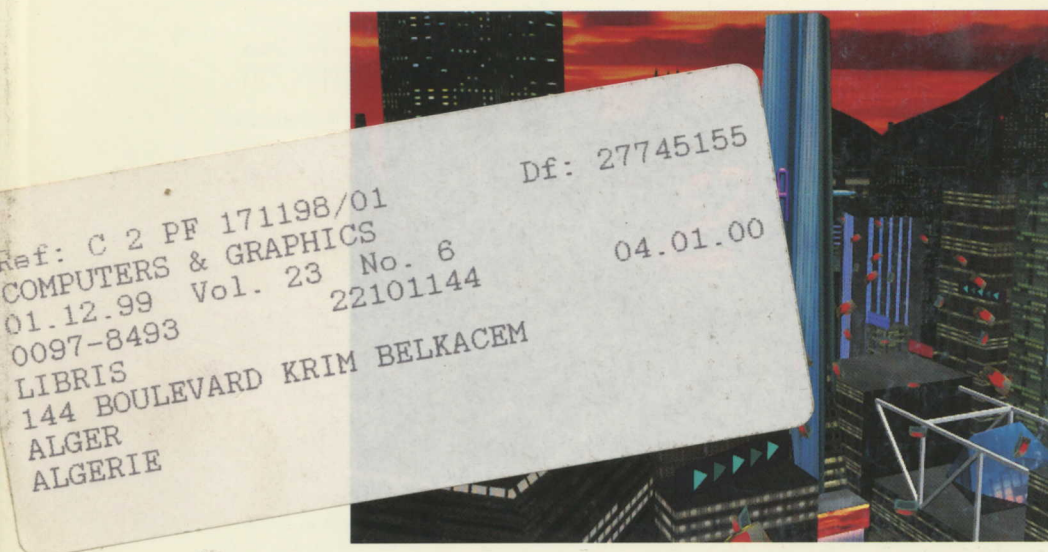
ISSN 0097-8493

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. Encarnaçao



In this issue the special topics are

AUGMENTED REALITY

*Guest Editors: A. Hildebrand
& M. Gervautz*

IMC '98 — SELECTION OF PAPERS

*Guest Editors: B. Urban
& T. Kirste*



PERGAMON

NOW included in your subscription:
**ELECTRONIC
ACCESS**
www.elsevier.nl/locate/elecacc

Computers & Graphics, Vol. 23, No. 6, 1999

Contents (Cont'd)

	<i>IMC '98</i>
Bodo Urban and Thomas Kirste	839 Guest Editors' Introduction
C. Freytag and L. Neumann	841 Resource adaptive WWW access for mobile applications
Alexander Schill, Sascha Kümmer, Thomas Springer and Thomas Ziegert	849 Two approaches for an adaptive multimedia transfer service for mobile environments
Uwe Rauschenbach and Heidrun Schumann	857 Demand-driven image transmission with levels of detail and regions of interest
Bengt-Olaf Schneider and Ioana M. Martin	867 An adaptive framework for 3D graphics over networks
W. Pasman, A. van der Schaaf, R.L. Lagendijk and F.W. Jansen	875 Accurate overlaying for mobile augmented reality
Keith Cheverst, Keith Mitchell and Nigel Davies	883 Design of an object model for a context sensitive tourist GUIDE
Albrecht Schmidt, Michael Beigl and Hans-W. Gellersen	893 There is more to context than location
Esteban Chavez, Rüdiger Ide and Thomas Kirste	903 Interactive applications of personal situation-aware assistants
Chaim Goodman-Strauss	917 <i>Chaos & Graphics</i> Dodecafoam and substitution tilings
Paul W. Carlson	925 Two artistic orbit trap rendering methods for Newton M-set fractals
	933 Past/Future issues
	934 Announcements

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>.

CONTENTS
Direct

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.



PERGAMON

ISSN 0097-8493

computers & graphics

An International Journal

Website: <http://www.elsevier.nl/locate/cag/>

<http://www.elsevier.com/locate/cag/>

Contents

Vol. 23, No. 6, 1999

In this issue the special topics are

AUGMENTED REALITY

*Guest Editors: A. Hildebrand
& M. Gervautz*

IMC '98 — SELECTION OF PAPERS

*Guest Editors: B. Urban
& T. Kirste*

- | | | |
|---|-----|--|
| Axel Hildebrand and
Michael Gervautz | 777 | <i>Augmented Reality</i>
Guest Editors' Introduction |
| Tobias Höllerer, Steven Feiner,
Tachio Terauchi,
Gus Rashid and
Drexel Hallaway | 779 | Exploring MARS: developing indoor and outdoor user interfaces to a mobile augmented reality system |
| Ronald Azuma, Jong Weon Lee,
Bolan Jiang, Jun Park,
Suya You and Ulrich Neumann | 787 | Tracking in unprepared environments for augmented reality systems |
| Klaus Dorfmueller | 795 | Robust tracking for augmented reality using retroreflective markers |
| Frank Seibert | 801 | Augmenting reality by using uncalibrated optical tracking |
| Thomas Auer and Axel Pinz | 805 | The integration of optical and magnetic tracking for multi-user augmented reality |
| Anton Fuhrmann, Gerd Hesina,
François Faure and
Michael Gervautz | 809 | Occlusion in collaborative augmented environments |
| Reinhold Behringer,
Steven Chen,
Venkataraman Sundareswaran,
Kenneth Wang and
Marius Vassiliou | 821 | A distributed device diagnostics system utilizing augmented reality and 3D audio |
| G. Klinker, D. Stricker and
D. Reiners | 827 | Optically based direct manipulation for augmented reality |
| Michael Wimmer, Markus Giegl
and Dieter Schmalstieg | 831 | Fast walkthroughs with image caches and ray casting |

(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

ISSN 0097-8493

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

371



PERGAMON



0097-8493(1999)23:6;1-V