

Proceedings

**Fourth International Conference on
Coordinated & Multiple Views in
Exploratory Visualization
(CMV 2006)**

**4 July 2006
London, England**

Associated and Co-Located with
International Conference on Information Visualization (IV06)

Edited by
Gennady Andrienko, Jonathan C. Roberts, and Chris Weaver



Los Alamitos, California
Washington • Tokyo

Copyright © 2006 by The Institute of Electrical and Electronics Engineers, Inc.
All rights reserved.

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries may photocopy beyond the limits of US copyright law, for private use of patrons, those articles in this volume that carry a code at the bottom of the first page, provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

Other copying, reprint, or republication requests should be addressed to: IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, P.O. Box 133, Piscataway, NJ 08855-1331.

The papers in this book comprise the proceedings of the meeting mentioned on the cover and title page. They reflect the authors' opinions and, in the interests of timely dissemination, are published as presented and without change. Their inclusion in this publication does not necessarily constitute endorsement by the editors, the IEEE Computer Society, or the Institute of Electrical and Electronics Engineers, Inc.

IEEE Computer Society Order Number P2605
ISBN-13: 978-0-7695-2605-8
ISBN-10: 0-7695-2605-5
Library of Congress Control Number 2006927615

Additional copies may be ordered from:

IEEE Computer Society
Customer Service Center
10662 Los Vaqueros Circle
P.O. Box 3014
Los Alamitos, CA 90720-1314
Tel: +1 800 272 6657
Fax: +1 714 821 4641
<http://computer.org/cspress>
csbooks@computer.org

IEEE Service Center
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
Tel: +1 732 981 0060
Fax: +1 732 981 9667
[http://shop.ieee.org/store/](http://shop.ieee.org/store/customer-service@ieee.org)
customer-service@ieee.org

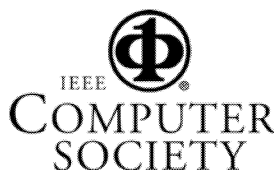
IEEE Computer Society
Asia/Pacific Office
Watanabe Bldg., 1-4-2
Minami-Aoyama
Minato-ku, Tokyo 107-0062
JAPAN
Tel: +81 3 3408 3118
Fax: +81 3 3408 3553
tokyo.ofc@computer.org

Individual paper REPRINTS may be ordered at: reprints@computer.org

Editorial production by Randall S. Bilof

Cover art production by Joe Daigle/Studio Productions

Printed in the United States of America by The Printing House



IEEE Computer Society
Conference Publishing Services
<http://www.computer.org/proceedings/>

Contents

Proceedings of Fourth International Conference on Coordinated & Multiple Views in Exploratory Visualization

CMV 2006

Preface	vi
Acknowledgments	vii
Organizers	viii
International Program Committee and Reviewers	ix

Session 1: Exploratory Techniques

Chair: *Chris Weaver*

Exploring Web Search Results Using Coordinated Views	3
<i>Orland Hoeber and Xue Dong Yang</i>	
exploRase: Exploratory Data Analysis of Systems Biology Data	14
<i>Michael Lawrence, Eun-Kyung Lee, Dianne Cook, Heike Hofmann, and Eve Wurtele</i>	
Data Exploration Combining Kinetic and Static Visualization Displays.....	21
<i>Fanhai Yang, Howard Goodell, Ronald Pickett, Robert Bobrow, Alexander Baumann, Alexander Gee, and Georges Grinstein</i>	

Session 2: High Dimensional Data

Chair: *Jonathan C. Roberts*

The LuMPB Key: A Multiple View Interface to Explore High Dimensional Mountain Pine Beetle Simulation Data	31
<i>Lothar Schlesier, Josie Hughes, Andrew Fall, and M. S. T. Carpendale</i>	
MultiSOM: A Multiview Neural Model for Accurately Analyzing and Mining Complex Data	42
<i>Jean-Charles Lamirel and Shadi Al Shehabi</i>	
An Architecture for Visualisation and Interactive Analysis of Proteins	55
<i>Philip McDermott, James Sinnott, Dave Thorne, and Steve Pettifer</i>	

Session 3: Systems and Techniques

Chair: *Gennady Andrienko*

A Multiple View System for Modeling Building Entities	69
<i>Frank Steinicke, Timo Ropinski, Klaus Hinrichs, and Gerd Bruder</i>	
Metavizual Exploration and Analysis of DEVise Coordination in Improvise	79
<i>Chris Weaver</i>	
Coordinated Visualisation of Video and System Log Data	91
<i>Alistair Morrison, Paul Tennent, and Matthew Chalmers</i>	

Author Index	103
--------------------	-----