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Front Matter: Volume 8758

, "Front Matter: Volume 8758," Proc. SPIE 8758, Next-Generation Analyst, 875801 (14 June 2013); doi: 10.1117/12.2032139

Event: SPIE Defense, Security, and Sensing, 2013, Baltimore, Maryland, United States

PROCEEDINGS OF SPIE

Next-Generation Analyst

Barbara D. Broome
David L. Hall
James Llinas
Editors

29–30 April 2013
Baltimore, Maryland, United States

Sponsored and Published by
SPIE

Volume 8758

Proceedings of SPIE 0277-786X, V. 8758

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Next-Generation Analyst, edited by Barbara D. Broome, David L. Hall, James Llinas,
Proc. of SPIE Vol. 8758, 875801 · © 2013 SPIE · CCC code: 0277-786X/13/\$18
doi: 10.1117/12.2032139

Proc. of SPIE Vol. 8758 875801-1

The papers included in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. The papers published in these proceedings reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

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Author(s), "Title of Paper," in *Next-Generation Analyst*, edited by Barbara D. Broome, David L. Hall, James Llinas, Proceedings of SPIE Vol. 8758 (SPIE, Bellingham, WA, 2013) Article CID Number.

ISSN: 0277-786X

ISBN: 9780819495495

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

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Printed in the United States of America.

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Introduction

A new generation of intelligence analysts and intelligence information users is emerging. These *next-generation* analysts and users are thoroughly familiar with Open Source information, participate in social networks and “hive mind” collaboration, and generally utilize all of the emerging capabilities of hand-held computer/sensor systems (a k a “smartphones”). The new environment includes ubiquitous sensing and human reporting (participatory sensing), access to Cloud computing for advanced modeling, and dynamic collaboration via social networks and virtual world technologies.

This conference brought together researchers and practitioners to discuss these emerging changes including; perspectives on the evolution of tools and technology for accessing and processing data, collaboration methods, implications for new analysis methods, opportunities, threats (e.g., “the commoditization of Information, Surveillance and Reconnaissance (ISR)”), and implications for operations. Specific DOD and industry applications were of particular interest.

This proceedings volume provides the SPIE community with new perspectives on this emerging field. Papers contained here span the range from general overviews of advances in data visualization, decision support, mathematical techniques, and examples of test beds and prototype systems. A wide range of organizations are represented in this collection including universities, small and large companies, government organizations, and research laboratories.

Because of the high interest in these papers it is anticipated that this represents the inauguration of several years of focus on this topic area. We are grateful to the efforts of our distinguished invited speakers, authors, and associates in the program committee.

Barbara Broome
David L. Hall
James Llinas