

PROCEEDINGS OF SPIE

# ***MIPPR 2015: Parallel Processing of Images and Optimization; and Medical Imaging Processing***

**Jianguo Liu**

*Editor*

**31 October–1 November, 2015**

**Enshi, China**

*Organized by*

Huazhong University of Science and Technology (China)

Hubei University for Nationalities (China)

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National Key Laboratory of Science and Technology on Multi-spectral Information Processing  
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*Published by*

SPIE

**Volume 9814**

Proceedings of SPIE 0277-786X, V. 9814

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

MIPPR 2015: Parallel Processing of Images and Optimization; and Medical Imaging Processing,  
edited by Jianguo Liu, Proc. of SPIE Vol. 9814, 981401 · © 2015 SPIE  
CCC code: 0277-786X/15/\$18 · doi: 10.1117/12.2230505

Proc. of SPIE Vol. 9814 981401-1

The papers 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. Additional papers and presentation recordings may be available online in the SPIE Digital Library at [SPIDigitalLibrary.org](http://SPIDigitalLibrary.org).

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Please use the following format to cite material from this proceedings:

Author(s), "Title of Paper," in *MIPPR 2015: Parallel Processing of Images and Optimization; and Medical Imaging Processing*, edited by Jianguo Liu, Proceedings of SPIE Vol. 9814 (SPIE, Bellingham, WA, 2015) Six-digit Article CID Number.

ISSN: 0277-786X  
ISSN:1996-756X (electronic)  
ISBN: 9781510600553

Published by

**SPIE**

P.O. Box 10, Bellingham, Washington 98227-0010 USA  
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Printed in the United States of America.

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## Introduction

Welcome to proceedings from the 9th International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR 2015), which was held in Enshi, Hubei, China, 31 October to 1 November 2015.

MIPPR 2015 is a biennial symposium which focuses mainly on the latest research in multispectral image processing and pattern recognition. The symposium had a broad charter. Multispectral was interpreted as not just multiple-wavelength in a narrow sense but also multi-sensor, multi-modal, and multimedia. The symposium covered many disciplines such as sensing, image processing, computer vision, and pattern recognition and involved the development of efficient processing algorithms and their optimization and implementation. The wide range of applications considered included automatic target recognition, autonomous navigation, medical image processing, remote sensing, geographic information systems, and many others.

The symposium provided a forum for scientists, professors, engineers, and graduate students from universities, industries, and government laboratories to meet and exchange ideas and discuss theories, techniques, algorithms, and applications in multispectral image processing and pattern recognition. As expected, there were ample discussions both inside and outside the lecture halls, and it was an exciting meeting.

In response to our call for papers, we received 326 submissions. Based on the reviews provided by an excellent program committee we accepted 245 papers covering many aspects of multispectral image processing and pattern recognition. To ensure a high-quality conference, all abstracts and proceedings of SPIE manuscripts were reviewed by peers for technical merit and English expression. The proceedings from MIPPR 2015 consist of the following five volumes, which are all included in the SPIE Digital Library:

- *MIPPR 2015: Multispectral Image Acquisition, Processing and Analysis (SPIE Volume 9811)*
- *MIPPR 2015: Automatic Target Recognition and Navigation (SPIE Volume 9812)*
- *MIPPR 2015: Pattern Recognition and Computer Vision (SPIE Volume 9813)*
- *MIPPR 2015: Parallel Processing of Images and Optimization; and Medical Imaging Processing (SPIE Volume 9814)*
- *MIPPR 2015: Remote Sensing Image Processing, Geographic Information Systems; and Other Applications (SPIE Volume 9815).*

The realization of a conference depends upon the hard work of many dedicated people. We thank all the members of the organizing committee who put together

MIPPR 2015 for the benefit of all the researchers and for making this conference a success. We hope the papers and the research results presented at this symposium will inspire new research in all the areas related to multispectral image processing and pattern recognition.

**Bir Bhanu**