

PROCEEDINGS OF SPIE

# ***MIPPR 2019: Parallel Processing of Images and Optimization Techniques; and Medical Imaging***

**Hong Sun  
Bruce Hirsch  
Chao Cai**  
*Editors*

**2–3 November 2019  
Wuhan, China**

*Organized by*  
Huazhong University of Science and Technology (China)  
National Key Laboratory of Science and Technology on Multi-spectral Information Processing  
(China)  
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SPIE

**Volume 11431**

Proceedings of SPIE 0277-786X, V. 11431

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

MIPPR 2019: Parallel Processing of Images and Optimization Techniques; and Medical Imaging,  
edited by Hong Sun, Bruce Hirsch, Chao Cai, Proc. of SPIE Vol. 11431, 1143101  
© 2020 SPIE · CCC code: 0277-786X/20/\$21 · doi: 10.1117/12.2565989

Proc. of SPIE Vol. 11431 1143101-1

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 SPIEDigitalLibrary.org.

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

Author(s), "Title of Paper," in *MIPPR 2019: Parallel Processing of Images and Optimization Techniques; and Medical Imaging*, edited by Hong Sun, Bruce Hirsch, Chao Cai, Proceedings of SPIE Vol. 11431 (SPIE, Bellingham, WA, 2020) Seven-digit Article CID Number.

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

ISBN: 9781510636392  
ISBN: 9781510636408 (electronic)

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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## Introduction

Welcome to the Proceedings of the 11th International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR 2019) held 2–3 November 2019 in Wuhan, China.

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

The symposium provides 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 helping to make MIPPR 2019 an exciting meeting.

In response to the Call for Papers, we received 258 submissions. Based on the reviews provided by an excellent program committee we accepted 199 papers covering many aspects of multispectral image processing and pattern recognition. To ensure a high-quality conference, all abstracts and Proceedings of SPIE papers are reviewed by the peers for technical merit and English expression. The proceedings from MIPPR 2019 consist of five volumes which will be included on the SPIE Digital Library.

- *MIPPR 2019: Multispectral Image Acquisition, Processing, and Analysis* (SPIE Volume 11428)
- *MIPPR 2019: Automatic Target Recognition and Navigation* (SPIE Volume 11429)
- *MIPPR 2019: Pattern Recognition and Computer Vision* (SPIE Volume 11430)
- *MIPPR 2019: Parallel Processing of Images and Optimization Techniques; and Medical Imaging* (SPIE Volume 11431)
- *MIPPR 2019: Remote Sensing Image Processing, Geographic Information Systems, and Other Applications* (SPIE Volume 11432).

The realization of a conference depends upon the hard work of many dedicated people. We would like to thank all the members of the Organizing Committee to

put together this symposium for the benefit of all the researchers. They are responsible for making this conference a success. We hope the papers and the research results presented at this conference will inspire new research in all the areas related with multispectral image processing and pattern recognition.

**Bir Bhanu**