

June 27–28, 2022
Santa Barbara, CA, USA



Association for
Computing Machinery



IH-MMSEC '22

Proceedings of the 2022 ACM Workshop on
Information Hiding and Multimedia Security

Sponsored by:

ACM SIGMM

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B.S. Manjunath, University of California, Santa Barbara, USA

Technical Program Chairs:

Jan Butora, University of Lille, France

Benedetta Tondi, University of Siena, Italy

Claus Vielhauer, Brandenburg University of Applied Sciences, Germany



**Association for
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**1601 Broadway, 10th Floor
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ISBN: 978-1-4503-9355-3

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Printed in the USA

Preface

Welcome to the 2022 ACM Workshop on Information Hiding and Multimedia Security - IH&MMSec '22. The meeting is held at the beautiful University of California, Santa Barbara Campus, with a return to an in-person meeting after 2 years of virtual meetings.

In these challenging times, security and forensics are topics of significant global interest. We would like to thank all the authors who contributed to making this event possible. The meeting was advertised as in-person when the call for papers went out, and we received a total of 38 submissions. After a careful review of the submissions, 18 papers were accepted for presentation, 10 as full length papers and 8 as short papers. The papers cover a broad spectrum of topics ranging from security of multimedia data and machine learning models, data hiding to image/video forensics.

We would like to thank the IH&MMSec advisory board, especially Professor Jessica Fridrich, for her advice and guidance in getting this year's workshop organized.

Our sincere thanks to UC Santa Barbara's Marine Science Institute for the use of their auditorium and space for hosting the reception - spectacular balcony location overlooking the ocean and the mountains, and to our ACM SIGMM sponsor.

Sincerely

General Chair

B.S. Manjunath

Technical Program Chairs

Jan Butora

Benedetta Tondi

Claus Vielhauer

IH&MMSec 2022 Program Chairs' Welcome

It is our great pleasure to welcome you to the *10th ACM Workshop on Information Hiding and Multimedia Security (IH&MMSEC 2022)*. This year's workshop continues its tradition of being the premier events for presentation of research results and experience reports on multimedia security and attracts researchers from all over the world.

The workshop focuses on information hiding topics, such as digital watermarking, steganography, steganalysis, anonymity, hard-to-intercept communications, forensics, and covert/subliminal channels. It also covers a variety of multimedia security topics including multimedia identification and authentication, signal forensics, and biometrics.

The mission of the workshop is to share novel solutions that fulfil the needs of heterogeneous security applications and identify new directions for future research and development. IH&MMSEC gives researchers and practitioners a unique opportunity to share their perspectives with others interested in the various aspects of multimedia security.

The call for papers attracted submissions from Asia, Europe, and the United States. We are proud to announce that this year both the quality and number of submissions was extremely high.

As a consequence, the TPC chairs and general chairs worked very hard to compile a program, consisting of outstanding papers, based on a very strict selection of 18 accepted papers out of 38 submitted (acceptance rate: 47%).

| Track | Reviewed | Accepted | |
|-----------------------------|----------|----------|-----|
| Full/Short Technical Papers | 38 | 18 | 47% |

We also encourage attendees to attend the keynote and invited talk presentations. These valuable and insightful talks can and will guide us to a better understanding of the future:

- *Towards Generalization in Deepfake Detection*, Luisa Verdoliva (University Federico II of Naples, Italy)
- *Looking for Signals: A Systems Security Perspective*, Christopher Kruegel (VMware, USA)
- *Intellectual Property (IP) Protection for Deep Learning and Federated Learning Models*, Farinaz Koushanfar (University of California San Diego, USA)

We hope that you will find this program interesting and thought-provoking and that the symposium will provide you with a valuable opportunity to share ideas with other researchers and practitioners from institutions around the world.

IH&MMSEC 2022 Technical Program Chairs

Jan Butora
University of Lille, France

Benedetta Tondi
University of Siena, Italy

Claus Vielhauer
Brandenburg University of Applied Sciences, Germany

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