Technologies for Optical Countermeasures XIX

Robert J. Grasso
Marc Eichhorn
Gareth D. Lewis
Editors

5 September 2023
Amsterdam, Netherlands

Sponsored by
SPIE

Cooperating Organisations
Cranfield University (United Kingdom)

Published by
SPIE

Volume 12738
## Contents

### Conference Committee


### KEYNOTE

| 12738 03 | The disruptive impact of dynamic laser dazzling on template matching algorithms applied to thermal infrared imagery (Invited Paper) [12738-1] |

### LASER EFFECTS

| 12738 05 | Laser dazzling: an overview (Invited Paper) [12738-3] |
| 12738 06 | Laser dazzling in the visible region: some issues (Invited Paper) [12738-4] |
| 12738 07 | Modelling the heating of GFRP by high-energy laser radiation considering the pyrolysis of binder material [12738-5] |
| 12738 09 | Investigations on the laser radar cross section of optical components [12738-7] |

### BEAM STEERING, POINTING, AND CONTROL

| 12738 0A | Spatial channel multiplexing emulation with a 21-channel multiplane plane light converter (Invited Paper) [12738-8] |

### LASER SOURCES AND POWER SCALING

| 12738 0D | Investigation of the temperature dependence of core-pumped 2 μm thulium-doped fiber lasers [12738-11] |
| 12738 0E | Power scaling of segmented and homogeneously doped Ho³⁺: YAG laser resonators (Best Student Paper Award) [12738-12] |

### LASER AGAINST PERSONNEL

| 12738 0F | An approach for laser safety calculations for electro-optical imaging systems [12738-13] |
Investigating the impact of laser dazzling on shooting performance in a simulator environment [12738-14]

Three-wavelength laser dazzler soft-countermeasure [12738-15]

0D, 1D, and 2D boron nitride nanomaterials for countermeasures in the visible spectral range [12738-16]
Conference Committee

Symposium Chair

Ric Schleijpen, TNO (Netherlands)

Conference Chairs

Robert J. Grasso, NASA Goddard Space Flight Center (United States)
Marc Eichhorn, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung IOSB (Germany)
Gareth D. Lewis, Royal Military Academy (Belgium)

Conference Program Committee

Frances Bodrucki, The University of North Carolina at Charlotte (United States)
Pierre Bourdon, ONERA (France)
Christopher D. Burgess, Defence Science and Technology Laboratory (United Kingdom)
M. J. Daniel Esser, Heriot-Watt University (United Kingdom)
Markus Henriksson, FOI-Swedish Defence Research Agency (Sweden)
James P. Hitscherich, U.S. Army Combat Capabilities Development Command (United States)
Itor James, Defence Science and Technology Laboratory (United Kingdom)
Arkadiy A. Lyakh, University of Central Florida (United States)
William Ted Masselink, Humboldt-Universität zu Berlin (Germany)
Richard Maulini, Alpes Lasers SA (Switzerland)
Curtis R. Menyuk, University of Maryland, Baltimore County (United States)
Eric D. Park, Q-Peak, Inc. (United States)
Martin C. Richardson, CREOL, The College of Optics and Photonics, University of Central Florida (United States)
Jasbinder S. Sanghera, U.S. Naval Research Laboratory (United States)
Ric Schleijpen, TNO (Netherlands)
Bastian Schwarz, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung IOSB (Germany)
Ove Steinvall, Swedish Defence Research Agency (Sweden)
Alexander M. J. van Eijk, TNO (Netherlands)
Hans-Dieter Tholl, Diehl BGT Defence GmbH and Company KG (Germany)
Marijke Vandewal, Royal Military Academy (Belgium)