Atmospheric and Oceanic Propagation of Electromagnetic Waves V

Olga Korotkova
Editor

25 January 2011
San Francisco, California, United States

Sponsored and Published by
SPIE

Volume 7924
## Contents

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Microfabrication by optical tweezers (Plenary Paper) (7921-102)</td>
<td>R. Ghadiri, T. Weigel, C. Esen, A. Ostendorf, Ruhr-Univ. Bochum (Germany)</td>
</tr>
<tr>
<td></td>
<td><strong>SESSION 1</strong> WAVE PROPAGATION IN RANDOM MEDIA: THEORETICAL STUDIES</td>
<td></td>
</tr>
<tr>
<td>7924 02</td>
<td>Generation of various partially coherent beams and their propagation properties in turbulent atmosphere: a review (Invited Paper) [7924-01]</td>
<td>Y. Cai, Soochow Univ. (China)</td>
</tr>
<tr>
<td>7924 03</td>
<td>Scintillation of Airy beam arrays in atmospheric turbulence [7924-02]</td>
<td>G. Gbur, Y. Gu, The Univ. of North Carolina at Charlotte (United States)</td>
</tr>
<tr>
<td>7924 04</td>
<td>Scintillation properties of pseudo-Bessel correlated beams in atmospheric turbulence [7924-03]</td>
<td>Y. Gu, G. Gbur, The Univ. of North Carolina at Charlotte (United States)</td>
</tr>
<tr>
<td>7924 06</td>
<td>Method of evaluation of the mutual coherence function of laser beams and its application for symmetric dark hollow beams [7924-05]</td>
<td>V. A. Banakh, D. A. Marakasov, D. S. Rytchkov, V.E. Zuev Institute of Atmospheric Optics (Russian Federation); Y. K. Baykal, H. T. Eyyuboğlu, Çankaya Univ. (Turkey)</td>
</tr>
<tr>
<td></td>
<td><strong>SESSION 2</strong> WAVE PROPAGATION IN RANDOM MEDIA: EXPERIMENTAL STUDIES</td>
<td></td>
</tr>
<tr>
<td>7924 09</td>
<td>Probability density function of fluctuating intensity of a laser beam propagating in marine atmospheric turbulence [7924-08]</td>
<td>S. Avramov-Zamurovic, U.S. Naval Academy (United States); O. Korotkova, Univ. of Miami (United States); R. Malek-Madani, U.S. Naval Academy (United States)</td>
</tr>
<tr>
<td>7924 0A</td>
<td>PicoSecond laser pulse propagation delay fluctuation through atmosphere [7924-09]</td>
<td>J. Blazej, I. Prochazka, L. KraI, Czech Technical Univ. in Prague (Czech Republic)</td>
</tr>
<tr>
<td></td>
<td><strong>SESSION 3</strong> MITIGATION OF RANDOM MEDIA (ATMOSPHERE AND OCEAN) AND APPLICATIONS</td>
<td></td>
</tr>
<tr>
<td>7924 0D</td>
<td>Optical wireless communication through random media (Invited Paper) [7924-12]</td>
<td>S. Arnon, Ben-Gurion Univ. of the Negev (Israel)</td>
</tr>
</tbody>
</table>
SESSION 4 MODELING AND MEASUREMENTS OF ATMOSPHERIC TURBULENCE

7924 0F Wavefront sensing and adaptive control in phased array of fiber collimators [7924-14]
S. L. Lachinova, Univ. of Maryland, College Park (United States) and Optonicus (United States); M. A. Vorontsov, Univ. of Dayton (United States)

7924 0G Scintillation reduction for combined Gaussian-vortex beam propagating through turbulent atmosphere [7924-15]
G. P. Berman, Los Alamos National Lab. (United States); V. N. Gorshkov, Los Alamos National Lab. (United States), National Technical Univ. of Ukraine (Ukraine), and Institute of Physics (Ukraine); S. V. Torous, National Technical Univ. of Ukraine (Ukraine)

7924 0H On fading probability density functions of fast-tracked and untracked free-space optical communication channels [7924-16]
Z. Zhao, R. Liao, Michigan Technological Univ. (United States)

7924 0I RF-modulated pulsed fiber optic lidar transmitter for improved underwater imaging and communications [7924-17]
F. Kimpel, Y. Chen, J.-L. Fouron, M. Akbulut, D. Engin, S. Gupta, Fibertek, Inc. (United States)

7924 0K A tunable diode laser absorption system for long path atmospheric transmission and high energy laser applications [7924-19]
C. A. Rice, G. Perram, Air Force Institute of Technology (United States)

7924 0L Atmospheric absorption spectroscopy using Tm: fiber sources around two microns [7924-20]
P. Kadwani, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); J. Chia, College of Optical Sciences, The Univ. of Arizona (United States); F. Altal, Masdar Institute of Science & Technology (United Arab Emirates); R. A. Sims, C. Willis, L. Shah, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); D. Killinger, Univ. of South Florida (United States); M. C. Richardson, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States)

7924 0N Hybrid technique for propagation and scattering from random medium containing random distribution of particles [7924-22]
Z. Tong, O. Korotkova, Univ. of Miami (United States)

Author Index
Conference Committee

Symposium Chairs

Friedhelm Dorsch, TRUMPF GmbH & Company KG (Germany)
Alberto Piqué, U.S. Naval Research Laboratory (United States)

Symposium Cochairs

Donald J. Harter, IMRA America, Inc. (United States)
Peter R. Herman, University of Toronto (Canada)

Conference Chair

Olga Korotkova, University of Miami (United States)

Program Committee

Larry C. Andrews, University of Central Florida (United States)
Yahya K. Baykal, Çankaya University (Turkey)
Yangjian Cai, Soochow University (China)
Frank D. Eaton, Air Force Research Laboratory (United States)
Gregory Gbur, The University of North Carolina at Charlotte (United States)
G. Charmaine C. Gilbreath, U.S. Naval Research Laboratory (United States)
Merrick C. Haller, Oregon State University (United States)
Vladimir P. Lukin, V.E. Zuev Institute of Atmospheric Optics (Russian Federation)
Alex S. Mahalov, Arizona State University (United States)
Ronald L. Phillips, Florida Space Institute (United States)
Jixiong Pu, Huaqiao University (China)
Robert K. Tyson, The University of North Carolina at Charlotte (United States)
Daomu Zhao, Zhejiang University (China)