

Contents

vii *Conference Committee*

WDM DEVICES FOR TELECOMMUNICATIONS AND DATA COMMUNICATIONS

- 3 **Integrated planar waveguide demultiplexers for high-density WDM applications**
E. S. Koteles, National Research Council Canada
- 33 **Silica-based planar lightwave circuits for WDM applications**
K. Okamoto, M. Kawachi, NTT Optoelectronics Labs. (Japan)
- 50 **Multimode-fiber-compatible WDM/WDDM with an ultralarge-wavelength dynamic range**
R. T. Chen, J. Liu, X. Deng, Univ. of Texas/Austin

OPTICAL AMPLIFIERS AND INNOVATIVE ARCHITECTURES FOR WDM

- 75 **Planar waveguide WDM technology: from components to systems**
Y. J. Chen, Univ. of Maryland/Baltimore County; H. Li, Tyco Submarine Systems Ltd.
- 108 **Multiwavelength optical code division multiplexing**
C. F. Lam, R. B. Vrijien, M. C. Wu, E. Yablonovitch, Univ. of California/Los Angeles; D. T. K. Tong, Lucent Technologies

WDM TRANCEIVERS

- 135 **Flexible low-cost WDM transmitter for mass production**
K. E. Redner, Ortel Corp.

WDM SYSTEM CONSIDERATIONS

- 155 **WDM application in the network of Deutsche Telekom AG**
M. Rocks, A. Ehrhardt, A. Gladisch, N. Hanik, G. Lehr, Deutsche Telekom AG (Germany)
- 181 **3D photonic integrated circuits for WDM applications**
A. Shakouri, Univ. of California/Santa Cruz; B. Liu, P. Abraham, J. E. Bowers, Univ. of California/Santa Barbara

- 205 **Design options for high-bit-rate WDM systems**
D. Breuer, K. Petermann, Technische Univ. Berlin (Germany)
- 220 **Key limitations in WDM systems and networks**
A. E. Willner, Univ. of Southern California
- 246 **Hybrid and monolithic wavelength division multiplexed transmitter arrays: performance of commercially available devices**
G. Guidice, H. Temkin, Texas Tech Univ.; H. Wang, G. Sun, Z. F. Fan, M. Dagenais, Univ. of Maryland/College Park; Y. J. Chen, Univ. of Maryland/Baltimore County; M. Fallahi, D. L. Mathine, N. Peyghambarian, Optical Sciences Ctr./Univ. of Arizona

Conference Committee

Conference Chairs

Ray T. Chen, University of Texas/Austin
Louis S. Lome, Ballistic Missile Defense Organization

Program Committee

Yung J. Chen, University of Maryland/Baltimore
Deborah L. Crawford, National Science Foundation
Paul Dempewolf, LightPath Technologies, Inc.
Mahmoud Fallahi, Optical Sciences Center/University of Arizona
Siamak Forouhar, Jet Propulsion Laboratory
Robert J. Lang, SDL, Inc.
Robert F. Leheny, DARPA
Antonio J. Mendez, Mendez R&D Associates
William H. Steier, University of Southern California

Session Chairs

- 1 WDM Devices for Telecommunications and Data Communications
Siamak Forouhar, Jet Propulsion Laboratory
- 2 Optical Amplifiers and Innovative Architectures for WDM
Henryk Temkin, Texas Tech University
- 3 WDM Transceivers
Ray T. Chen, University of Texas/Austin
- 4 WDM System Considerations
Louis S. Lome, Ballistic Missile Defense Organization