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Front Matter: Volume 6584

, "Front Matter: Volume 6584," Proc. SPIE 6584, Adaptive Optics for Laser Systems and Other Applications, 658401 (1 June 2007); doi: 10.1117/12.746904

SPIE.

Event: International Congress on Optics and Optoelectronics, 2007, Prague, Czech Republic

PROCEEDINGS OF SPIE

Adaptive Optics for Laser Systems and Other Applications

Gilles Cheriaux
Chris J. Hooker
Michal Štupka
Editors

18–19 April 2007
Prague, Czech Republic

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SPIE

Volume 6584

The International Society
for Optical Engineering

Proceedings of SPIE, 0277-786X, v. 6584

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

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Author(s), "Title of Paper," in *Adaptive Optics for Laser Systems and Other Applications*, edited by Gilles Cheriaux, Chris J. Hooker, Michal Stupka, Proceedings of SPIE Vol. 6584 (SPIE, Bellingham, WA, 2007) Article CID Number.

ISSN 0277-786X

ISBN 9780819467126

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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Contents

vii Conference Committee

ix Introduction

Liquid crystalline nonlinear optical metamaterials with low-loss tunable negative-zero-positive refractive indices (Plenary Paper) [6587-203]

I. C. Khoo, A. Diaz, D.-H. Kwon, D. H. Werner, Pennsylvania State Univ. (USA)

SESSION 1 HIGH-POWER LASER SYSTEM ADAPTIVE OPTICS

- 6584 02 **Adaptive optics at the PHELIX laser (Keynote Paper) [6584-01]**
H.-M. Heuck, U. Wittrock, Münster Univ. of Applied Sciences (Germany); J. Fils, S. Borneis, K. Witte, U. Eisenbart, D. Javorkova, V. Bagnoud, S. Götte, A. Tauschwitz, E. Onkels, Gesellschaft für Schwerionenforschung mbH (Germany)
- 6584 03 **Design principle and first results obtained on the LMJ deformable mirror prototype (Invited Paper) [6584-02]**
C. Grosset-Grange, J.-N. Barnier, C. Chappuis, H. Cortey, CEA Cesta (France)
- 6584 04 **Wavefront correction and aberrations pre-compensation in the middle of Petawatt-class CPA laser systems [6584-03]**
F. Canova, L. Canova, A. Flacco, R. Clady, J.-P. Chambaret, Lab. d'Optique Appliquée, CNRS, ENSTA-Ecole Polytechnique (France); F. Plé, M. Pittman, Lab. d'interaction du rayonnement X avec la matière (France); T. A. Planchon, Colorado School of Mines (USA); M. Silva, R. Benocci, G. Lucchini, D. Batani, Univ. Milano-Bicocca (Italy); E. Lavergne, G. Dovillaire, X. Levecq, Imagine Optic (France)
- 6584 05 **Monomorph large aperture adaptive optics for high peak-power femtosecond lasers [6584-04]**
G. Cheriaux, J.-P. Rousseau, F. Burgy, Lab. d'Optique Appliquée, CNRS, ENSTA, Ecole Polytechnique (France); J.-C. Siquin, J.-M. Lurçon, C. Guillemard, CILAS (France)

SESSION 2 ASTRONOMICAL ADAPTIVE OPTICS AND APPLICATIONS

- 6584 07 **Review of astronomical adaptive optics systems and plans (Invited Paper) [6584-06]**
N. Devaney, National Univ. of Ireland, Galway (Ireland)
- 6584 08 **Optical wavefront differentiation: wavefront sensing for solar adaptive optics based on a LCD [6584-07]**
D. Schmidt, O. von der Lühe, Kiepenheuer Institut für Sonnenphysik (Germany)
- 6584 09 **High order optical aberrations influence to precision of astronomical image data processing [6584-08]**
M. Řeřábek, P. Páta, Czech Technical Univ. in Prague (Czech Republic); P. Koten, Astronomical Institute (Czech Republic)

SESSION 3 WAVEFRONT GENERATION, BEAM SHAPING, AND MEASURING TECHNIQUES

- 6584 0A **Surface tension determination using liquid sample micromirror property** [6584-09]
J. Hošek, Czech Technical Univ. in Prague (Czech Republic)
- 6584 0B **Symmetry descriptors for Si wafer characterisation for scanning helium atomic beam microscopy mirror** [6584-10]
J. Galas, D. Litwin, S. Sitarek, Institute of Applied Optics (Poland); B. Surma, B. Piątkowski, Institute of Electronic Materials Technology (Poland)
- 6584 0D **Smart lens: tunable liquid lens for laser tracking** [6584-12]
F.-Y. Lin, National Tsing Hua Univ. (Taiwan); L.-Y. Chu, National Chiao Tung Univ. (Taiwan); Y.-S. Juan, National Tsing Hua Univ. (Taiwan); S.-T. Pan, S.-K. Fan, National Chiao Tung Univ. (Taiwan)
- 6584 0E **Wave front generation using a phase-only modulating liquid-crystal-based micro-display with HDTV resolution** [6584-13]
A. Hermerschmidt, S. Osten, S. Krüger, HoloEye Photonics AG (Germany); T. Blümel, FISBA OPTIK GmbH (Germany)
- 6584 0F **Adaptive optics system to accurately measure highly aberrated wavefronts** [6584-14]
M. Ares, S. Royo, Technical Univ. of Catalunya (Spain)
- 6584 0G **Tunable electro-optical lithium niobate phase array for wavefront modulators** [6584-15]
M. Paturzo, P. Ferraro, Istituto Nazionale di Ottica Applicata, CNR (Italy); S. De Nicola, Istituto di Cibernetica, CNR (Italy); P. De Natale, Istituto Nazionale di Ottica Applicata, CNR (Italy); G. Pierattini, Istituto di Cibernetica, CNR (Italy)

SESSION 4 LASER SYSTEM ADAPTIVE OPTICS SIMULATIONS AND APPLICATIONS

- 6584 0H **Generation of 1.2 X diffraction-limited focal spot from the 100 TW Ti:sapphire laser system (Invited Paper)** [6584-22]
T. M. Jeong, I. W. Choi, N. Hafz, J. H. Sung, D.-K. Ko, J. Lee, Gwangju Institute of Science and Technology (South Korea)
- 6584 0I **Computational model for time development of the EM field in pulsed laser systems** [6584-18]
D. Škrabelj, Fotona (Slovenia); M. Marinček, Fotona (Slovenia) and Jozef Stefan Institute (Slovenia); I. Drevenšek-Olenik, Univ. of Ljubljana (Slovenia) and Jozef Stefan Institute (Slovenia); M. Leskovar, Fotona (Slovenia); M. Čopič, Univ. of Ljubljana (Slovenia) and Jozef Stefan Institute (Slovenia)

POSTER SESSION

- 6584 0M **Target alignment on the LIL laser facility** [6584-23]
M. Mangeant, J.-L. Dubois, R. André, P. Dupont, V. Moreau, C. Lissayou, C. Lanternier, E. Bar, S. Devaure, A. Perrin, P. Auliac, Y. Schiano, Commissariat à l'Energie Atomique (France)

6584 ON

Time fiducial on the LIL facility at CEA/CESTA [6584-24]

Y. Schiano, E. Bar, A. Richard, C. Feral, P. Darquey, Commissariat à l'Énergie Atomique (France)

Author Index

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Session Chairs

- 1 High-Power Laser System Adaptive Optics
Chris J. Hooker, Rutherford Appleton Laboratory (United Kingdom)
- 2 Astronomical Adaptive Optics and Applications
Petr Škoda, Astronomical Institute Ondřejov (Czech Republic)

- 3 Wavefront Generation, Beam Shaping, and Measuring Techniques
Gilles Cheriaux, École Nationale Supérieure de Techniques Avancées
(France)
- 4 Laser System Adaptive Optics Simulations and Applications
Michal Štupka, Institute of Physics (Czech Republic)

Introduction

We are pleased to present the proceedings of the SPIE conference on Adaptive Optics for Laser Systems and Other Applications, held in the city of Prague in the Czech Republic in April 2007. There are few subjects where there is such a range of topics that can be covered under one general heading, but adaptive optics is certainly one of those subjects. As the title suggests, this conference was slanted toward the use of adaptive optics in laser systems, but the committee were delighted to receive many high-quality contributions from workers in other areas. Consequently, it was possible to compare the applications of the technology in many disciplines, identify common ground, and to learn new ideas from one another. The papers presented at the conference ranged from astronomy, which was the original inspiration for the development of adaptive optics technology and which continues to drive it to this day, through applications in high-powered lasers that are breaking new ground in attaining the highest energy densities, to subtle techniques involved in the measurement of important physical parameters and to innovative techniques in ophthalmic medicine. A number of papers on simulations and modelling of phase correction of optical beams made up the balance of contributions and completed a well-rounded conference.

We would like to thank the members of the programme committee for their hard work in recruiting and encouraging contributors and for assessing all the submissions, and the authors and presenters of the papers for their contributions to an interesting and highly enjoyable conference.

Michal Stupka
Gilles Cheriaux
Chris Hooker