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Workshop "Image Sensors Optical Interfaces" Institut Aéronautique et Spatial , 27.11.2014, Toulouse, France
- Dietrich, Kay; Lehr, Dennis; Puffky, Oliver; Kley, Ernst-Bernhard; Tünnermann, Andreas  
**Chiral nanomaterial fabrication by means of on-edge lithography**  
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- Dietrich, K.; C. Menzel, D. Lehr, O. Puffky, U. Hübner, A. Tünnermann, T. Pertsch, E.-B. Kley  
**Elevating optical activity by On-Edge Lithography**  
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- Dietrich, K.; D. Lehr, T. Siefke, E.-B. Kley, A. Tünnermann  
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- Dizain, S.; Geiss, R.; Zilk, M.; Schremppel, F.; Kley, Ernst-Bernhard; Tünnermann, Andreas; Pertsch, Thomas  
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**Lokales Fügen transparenter Werkstoffe mit ultrakurzen Laserpulsen**
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- Dreisow, F.; S. Döring, S. Richter, F. Zimmermann, A. Tünnermann, S. Nolte  
**Lokales Fügen transparenter Werkstoffe mit ultrakurzen Laserpulsen**  
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- Dreisow, F.; S. Nolte  
**Volumenbearbeitung von Gläsern mit hochrepetierenden UKP-Lasern**  
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- Dreisow, F.; S. Nolte  
**Recent developments and applications of ultra short pulse-lasers**  
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- Dunkel, Jens; Wippermann, Frank; Brückner, Andreas; Reimann, Andreas; Müller, Martin; Bräuer, Andreas  
**Fabrication of refractive freeform array masters for artificial compound eye cameras**  
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- Duparré, Angela  
**Flexible manufacturing and modeling procedures for adjustable surface roughness and wetting properties**  
MST Conference, 9th International Symposium on Contact Angle, Wettability and Adhesion, 16.-18.6.2014, Bethlehem, Pennsylvania, USA
- Eberhardt, Ramona; Risse, Stefan; Gebhardt, Andreas  
**Metalloptische Komponenten und Systeme für Space Applikationen**  
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- Eidam, Tino; Klenke, Arno; Kienel, Marco; Breitkopf, Sven; von Grafenstein, Lorenz; Limpert, Jens; Tünnermann, Andreas  
**System Design for Joule-class Femtosecond Fiber Amplifiers for Particle Acceleration**  
Proceedings CLEO: Science and Innovations, 8.-13.6.2014, San Jose, USA, JTh4L, ISBN 978-1-55752-999-2
- Eidam, Tino; Arno Klenke, Marco Kienel, Fabian Stutzki,

Hans-Jürgen Otto, Thomas Gottschall, Cesar Jauregui, Steffen Hädrich, Jan Rothhardt, Jens Limpert, Andreas Tünnermann <b>Entwicklungen auf dem Gebiet der UKP Faserlaser</b> Workshop „Innovative Strahlungsquellen“, 9. Dez 2014, Nürnberg, Deutschland	International Symposium on Extreme Ultraviolet Lithography, 27.-29.10.2014, Washington, D. C., USA
Eidam, Tino; Arno Klenke, Marco Kienel, Sven Breitkopf, Jens Limpert, Andreas Tünnermann <b>A path towards Joule-class femtosecond pulses at &gt;10kHz repetition rate</b> International Conference on Ultrahigh Intensity Lasers (ICUIL), 12. - 17. Okt 2014, Goa, Indien	Gaida, Christian; Gebhardt, Martin; Stutzki, Fabian; Jansen, Florian; Wienke, Andreas; Zeitner, Uwe; Fuchs, Frank; Jauregui, Cesar; Limpert, Limpert; Tünnermann, Andreas <b>Tm-Doped Fiber CPA System with 152 W Average Power and Sub-700fs Pulse Duration</b> Advanced Solid State Lasers (ASSL), 16.-21.11.2014, Shanghai, China, AW4A.4, ISBN 978-1-55752-822-3
Eidam, Tino; Jens Limpert, Sven Breitkopf, Marco Kienel, Arno Klenke, Fabian Stutzki, Hans-Jürgen Otto, Thomas Gottschall, Cesar Jauregui, Steffen , Jan Rothhardt, Thomas Schreiber, Andreas Tünnermann <b>Coherent combination as performance scaling concept of ultrafast lasers</b> SPIE Defense and Security, 22. - 26. Sep 2014, Amsterdam, the Netherlands	Gaida, Christian; Stutzki, Fabian; Jansen, Florian; Otto, Hans-Jürgen; Eidam, Tino; Jauregui, Cesar; Limpert, Jens; Tünnermann, Andreas <b>High gain, ytterbium doped, Ge pedestal, large pitch fiber</b> SPIE Proceedings Vol. 8961 (2014) 89611K, ISBN 9780819498748
Ernst, D.; Bramlage, B.; Gebhardt, S.; Oberdörster, Alexander; Pabst, Oliver; Wippermann, Frank <b>Plenoptic Camera with Adaptable Depth of Field Using PZT Thick Film Actuators</b> Actuator 2014, 23.-25.6.2014, Bremen, Germany	Gaida, C.; F. Stutzki, M. Gebhardt, A. Wienke, F. Fuchs, D. Wandt, D. Kracht, C. Jauregui, J. Limpert, A. Tünnermann <b>152 W Tm-based fiber CPA system</b> Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China
Errmann, R.; S. Minardi, L. Labadie, F. Dreisow, S. Nolte, T. Pertsch <b>Integrated optics interferometric four telescopes nuller</b> SPIE Conference on Astronomical Instrumentation, 22. - 27. Jun 2014, Montreal, Canada	Gaida, C.; F. Stutzki, M. Gebhardt, F. Jansen, C. Jauregui, J. Limpert, A. Tünnermann <b>200 MW peak power from a Tm-doped fiber CPA system</b> Advanced Solid State Lasers (ASSL), 16. Nov - 21. Nov 2014, Shanghai, China
Errmann, R.; S. Minardi, T. Pertsch <b>A broadband scalar optical vortex coronagraph</b> SPIE Conference on Astronomical Instrumentation, 22. - 27. Jun 2014, Montreal, Canada	Gaida, Christian; Fabian Stutzki, Florian Jansen, Hans-Jürgen Otto, Cesar Jauregui, Jens Limpert and Andreas Tünnermann <b>Short-length Ge-pedestal large-pitch fiber</b> SPIE Photonics West, 1. - 6. Feb 2014, San Francisco, USA
Fasold, S.; C. Menzel, M. Falkner, C. Etrich, T. Paul , E.-B. Kley, C. Rockstuhl, A. Tünnermann and T. Pertsch <b>Near-Field Imaging with Subwavelength Resolution by a Plasmonic Moiré Magnifier</b> Metamaterials, 25. - 30. Aug 2014, Kopenhagen, Denmark	Gebhardt, Andreas; Kinast, Jan; Rohloff, Ralf-Rainer; Seifert, Walter; Beier, Matthias; Scheiding, Sebastian; Peschel, Thomas <b>Athermal metal optics made of nickel plated ALSI40</b> Proceedings of the ICSO 2014, International Conference on Space Optics, 7.-10.10. 2014, Tenerife, Spain
Feigl, Torsten; Perske, Marco; Pauer, Hagen; Fiedler, Tobias; Zeitner, Uwe; Leitel, Robert; Matthes, André; Trost, Marcus; Schröder, Sven <b>Dual-wavelength spectral purity filter for EUV collector mirrors</b>	Gebhardt, Andreas; Beier, Matthias; Peschel, Thomas <b>Fabrication method for large off-axis aspherical metal mirrors</b> euspen 14th International Conference & Exhibition, 2.-6.6.2014, Dubrovnik, Croatia
	Gebhardt, Martin; Christian Gaida, Fabian Stutzki, Cesar Jauregui, Jens Limpert, Andreas Tünnermann

## NAMEN, DATEN, EREIGNISSE | NAMES, DATA, ACTIVITIES

### Tm-doped fiber oscillator for high performance fiber CPA systems

Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China

Gottschall, Thomas; Cesar Jauregui, Tobias Meyer, Benjamin Dietzek, Jürgen Popp, Jens Limpert and Andreas Tünnermann  
**High fidelity fiber-based optical parametric oscillator for coherent anti-stokes Raman (CARS) microscopy**

SPIE Photonics West, 1. - 6. Feb 2014, San Francisco, USA

Gottschall, Thomas; Martin Baumgartl, Tobias Meyer, Benjamin Dietzek, Jürgen Popp, Jens Limpert and Andreas Tünnermann  
**Fiber-based Optical Parametric Oscillator for CARS Microscopy**

Europhoton, 24. - 29. Aug 2014, Neuchatel, Schweiz

Gottschall, Thomas; Martin Baumgartl, Tobias Meyer, Benjamin Dietzek, Jürgen Popp, Jens Limpert and Andreas Tünnermann  
**Fibre-based Optical Parametric Oscillator for CARS Microscopy**

Rank Prize Funds Opto-electronic Materials for the New Millenium Conference, 14. - 16. Jun 2014, Grasmere, England

Gräfe, M.; Heilmann, René; Perez-Leija, A.; Keil, R.; Dreisow, F.; Heinrich, M.; Nolte, Stefan.; Christodoulides, D.N.; Szameit, Alexander

### Single-photon W-states of high-order for random number generation

Quantum Information and Measurement, QIM 2014, 18.3.-20.3.2014, Berlin, Germany, Proceedings Code 105025, ISBN 978-155752995-4

Gräfe, M.; R. Heilmann, A. Perez-Leija, R. Keil, F. Dreisow, M. Heinrich, S. Nolte, D. N. Christodoulides, A. Szameit

### High-order single-photon W-states for random number generation

Heraeus Seminar, 2014, Bad Honnef, Germany  
Conference on Lasers and Electro Optics (CLEO), 8. Jun - 13. Jun 2014, San José, USA

Meeting of the APS Division of Atomic, Molecular and Optical Physics (DAMOP), 2. Jun - 6. Jun 2014, Madison, USA

Gräfe, M.; R. Heilmann, A. Perez-Leija, R. Keil, F. Dreisow, M. Heinrich, H. Moya-Cessa, S. Nolte, D. N. Christodoulides, A. Szameit

### Scalable Generation of High-Order Single-Photon W-states

Quantum Information and Measurement conference, 2014, Berlin, Germany

Gräfe, M.; R. Heilmann, A. Perez-Leija, S. Nolte, A. Szameit  
**Fs-laser-written integrated photonic quantum circuits**  
Congress of the International Commission for Optics, 26. - 29. Aug 2014, Santiago de Compostela, Spain

Gross, H.  
**Analysis of freeform optical systems**  
Ultraprecision manufacturing, 8. - 9. Sep 2014, Jena, Germany

Gross, H.  
**Generalized aberration surface contributions**  
European optical society annual meeting, 16. - 19. Sep 2014, Berlin, Germany

Hädrich, Steffen; Klenke, Arno; Hoffmann, Armin; Eidam, Tino; Gottschall, Thomas; Rothhardt, Jan; Limpert, Jens; Tünnermann, Andreas  
**High-pulse energy and average-power ultrashort laser pulses via nonlinear compression of coherently combined fiber CPA system**  
SPIE Photonics West, 1. - 6. Feb 2014, San Francisco, USA  
SPIE Proceedings Vol. 8961 (2014) 89611E, ISBN 9780819498748

Hädrich, Steffen; Klenke, Arno; Rothhardt, Jan; Krebs, Manuel; Hoffmann, Armin; Pronin, Oleg; Pervak, Vladimir; Limpert, Jens; Tünnermann, Andreas  
**Average Power Scaling of High Harmonic Generation towards 100 µW per Harmonic**  
Proceedings High Intensity Lasers and High Field Phenomena, OSA Technical Digest, HW3C.2, ISBN 978-1-55752-995-4

Hädrich, Steffen; Rothhardt, Jan; Klenke, Arno; Krebs, Manuel; Hoffmann, Armin; Pronin, Oleg; Pervak, Vladimir; Limpert, Jens; Tünnermann, Andreas  
**High Harmonic Generation of Fiber Laser Systems with more than 100 µW Average Power per Harmonic**  
Proceedings CLEO: Science and Innovations, 8.-13.6.2014, San Jose, USA, FTu2D, ISBN 978-1-55752-999-2

Hädrich, S.; J. Rothhardt, A. Klenke, M. Krebs, A. Hoffmann, O. Pronin, V. Pervak, J. Limpert, and A. Tünnermann  
**Efficient HHG of High Average Power Fiber Laser Yields More than 100 µW per Harmonic**  
Europhoton, 24. - 29. Aug 2014, Neuchatel, Schweiz

Haenschke, Frank; Kessler, Ernst; Ihring, Andreas; Bunte, Karl Dietrich; Herbst, Christian; Mohaupt, Matthias; Fichna, Torsten; Hagedorn, Daniel; Meyer, Hans-Georg

<b>Membrane based thermoelectric sensor array for space debris detection</b> SPIE Proceedings Vol. 9085 (2014) doi:10.1117/12.2054473, ISBN 9781628410228	Physics (DAMOP), 2. - 6. Jun 2014, Madison, USA Heilmann, René; Gräfe, Marcus; Nolte, Stefan; Szameit, Alexander <b>Hadamard, Pauli-X, and rotation operation for polarization encoded qubits on chip</b> High Intensity Lasers and High Field Phenomena, HILAS 2014, 18.-20.3.2014 Berlin, Germany, ISBN 978-155752995-4
Harzendorf, Torsten; Fuchs, Frank; Banasch, Michael; Zeitner, Uwe Detlef <b>Fast character projection electron beam lithography for diffractive optical elements</b> SPIE Photonics Europe 2014, 14.-17.4.2014, Brussels, Belgium SPIE Proceedings Vol. 9130 (2014) 91300Y, ISBN 9781628410785	Heist, Stefan; Kühmstedt, Peter; Notni, Gunther <b>Array-Projektion Aperiodischer Sinus-Muster zur Hochgeschwindigkeits-3D-Formvermessung</b> 115. DGaO Jahrestagung, 10.-14.6.2014, Karlsruhe, Germany
Hauber, S.; S. Döring, D. Harries, S. Nolte, F. Langenhorst <b>Laser shock experiments on olivine</b> 92nd Annual Meeting Deutsche Mineralogische Gesellschaft, 21. - 24. Sep 2014, Jena, Germany	Heist, Stefan; Mann, Andreas; Kühmstedt, Peter; Schreiber, Peter; Notni, Gunther <b>Array-projected aperiodic sinusoidal fringes for high-speed 3D shape measurement</b> SPIE DSS 2014, Sensing Technology+Applications, Dimensional Optical Metrology and Inspection for Practical Applications III, 5.-9.5.2014, Baltimore, USA, SPIE Proceedings Vol. 9110 (2014) 91100D, ISBN 9781628410471
Hauptvogel, Matthias; Schröder, Sven; Mejnertsen, Lars; Trost, Marcus; Duparré, Angela <b>Streulichtmessung optischer Komponenten im infraroten Spektralbereich</b> 115. DGaO Jahrestagung, 10.-14.6.2014, Karlsruhe, Germany	Hideur, Ammar; Wang, Hongjie; Tang, Mincheng; Lecaplain, Caroline; Baumgartl, Martin; Limpert, Jens; Schreiber, Thomas; Tünnermann, Andreas <b>High-energy Ultrafast Fiber Lasers</b> Specialty Optical Fibers, 27.-31.7.2014, Barcelona, Spain, ISBN 978-1-55752-820-9
Heidler, Nils; Holub, Tobias; Risse, Stefan; Eberhardt, Ramona <b>Investigations on the damping properties of vacuum compatible aerostatic journal gas bearing elements</b> 58th Ilmenau Scientific Colloquium, TU Ilmenau, 8.-12.12.2014, Ilmenau, Germany	Holzberger, Simon; Högner, Maximilian; Weitenberg, Johannes; Esser, Dominik; Eidam, Tino; Limpert, Jens; Tünnermann, Andreas et al. <b>Power-Scalable and Efficient Geometric XUV Output Coupling for Cavity-Enhanced High-Harmonic Generation</b> Proceedings CLEO: Science and Innovations, 8.-13.6.2014, San Jose, USA, FTu2D, ISBN 978-1-55752-999-2
Heilmann, R.; M. Gräfe, A. Perez-Leija, S. Nolte, A. Szameit <b>Laser-written integrated photonic quantum circuits</b> Frontiers in Optics, 19. - 23. Okt 2014, Tucson, USA	Hübner, U.; M. Falkner, U. D. Zeitner, M. Banasch, K. Dietrich, E.-B. Kley <b>Multi-stencil character projection e-beam lithography – a fast and flexible way for high quality optical metamaterials</b> 30th European Mask and Lithography Conference, 24. - 25. Jun 2014, Dresden, Germany
Heilmann, R.; M. Gräfe, S. Nolte, A. Szameit <b>Arbitrary photonic wave plate operations on-chip: Realizing Hadamard and Pauli-X gates for polarization encoded qubits</b> Conference on Lasers and Electro Optics (CLEO), 8. - 13. Jun 2014, San José, USA	Jauregui, Cesar; Otto, Hans-Jürgen; Stutzki, Fabian; Jansen, Florian; Limpert, Jens; Tünnermann, Andreas <b>Passive mitigation of mode instabilities</b> SPIE Proceedings Vol. 8961 (2014) 896128, ISBN
Heilmann, R.; M. Gräfe, S. Nolte, A. Szameit <b>Realization of Hadamard, Pauli-X, and rotation gates for polarization-encoded qubits on chip</b> Meeting of the APS Division of Atomic, Molecular and Optical	

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Jauregui, Cesar; Stutzki, Fabian; Jansen, Florian; Limpert, Jens; Tünnermann, Andreas

**Efficiency improvement in Thulium-doped fibers via excited state pumping**

SPIE Proceedings Vol. 8961 (2014) 89611B, ISBN

9780819498748

Jauregui, Cesar; Hans-Jürgen Otto, Florian Jansen, Fabian Stutzki, Norbert Modsching, Jens Limpert

**Thermal effects and mode instabilities in high-power fiber laser systems**

International Meeting on Fiber Lasers and Applications (IFLA), 23. - 24. Jun 2014, Tel Aviv, Israel

Jocher, Christoph; Jauregui, Cesar; Becker, Martin; Rothhardt, Manfred; Limpert, Jens; Tünnermann, Andreas

**All-fiber Raman oscillator for the generation of radially and azimuthally polarized beams**

SPIE Proceedings Vol. 8961 (2014) 896122, ISBN

9780819498748

Kaiser, Norbert

**Recent developments in the field of optical coatings from XUV to IR wavelength**

10th International Conference on Coatings on Glass and Plastics (ICCG), 22.-26.6.2014 Dresden, Germany

Kaiser, Norbert

**Recent developments in the field of optical coatings from XUV to IR wavelength**

The 3rd Frontiers of Optical Coatings (FOC2014) International Conference on optical thin film and coating technology, 20.-24.10.2014, Shanghai, China

Kaiser, Norbert; Lequime, Michel; Ristau, Detlev; Strümpfel, Johannes

**Challenges with new materials between feasibility, precision and homogeneity in the optical field and for large area application**

EUMAT Conference "Vacuum Coating Technologies, an Important Technique to Design New Materials, Functionalities and Performances", 6.11.2014, Dresden, Germany

Kaiser, T.; X. Wang, C. Helgert, S. Dizain, C. Rockstuhl, T. Pertsch

**Waveguides containing double cut-wire metamaterials – properties and applications**

Metamaterials, 25. - 30. Aug 2014, Kopenhagen, Denmark

Kalkowski, Gerhard; Risse, Stefan; Zeitner, Uwe; Fuchs, Frank; Eberhardt, Ramona, Tünnermann, Andreas

**Glass-Glass Direct Bonding**

ECS Transactions 64 (2014) 5 p. 3-11, ISSN 1938-6737

Kalkowski, G.; C. Rothhardt, S. Risse, S. Richter, F. Zimmermann, R. Eberhardt, S. Nolte

**Integriert-Optische Module durch neue Bondtechnologien (Opti-Bond)**

F.O.M.-Konferenz 2014: „Gemeinsam Zukunftstechnologien gestalten“, 4. Nov 2014, Berlin, Germany

Kienel, Marco; Klenke, Arno; Hädrich, Steffen; Eidam, Tino; Limpert, Jens; Tünnermann, Andreas

**Analysis of divided-pulse amplification for high-energy extraction**

SPIE Proceedings Vol. 8961 (2014) 89610M, ISBN  
9780819498748

Kienel, Marco; Michael Müller, Arno Klenke, Tino Eidam, Jens Limpert, Andreas Tünnermann

**Multi-dimensional Amplification of Ultrashort Pulses**

Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China

Kienel, Marco; Michael Müller, Stefan Demmler, Jan Rothhardt, Arno Klenke, Tino Eidam, Jens Limpert, and Andreas Tünnermann

**Energy Scaling of Femtosecond Yb: YAG Single-Crystal Rod Amplifiers using Coherent Beam Combination**

Europhoton, 24. - 29. Aug 2014, Neuchatel, Schweiz

Kim, E.; A. Steinbrück, M. T. Buscaglia, V. Buscaglia, T. Pertsch, R. Grange

**Coherent nanoprobes down to 22 nm diameter for turbid media imaging**

EOSAM, 15. - 19. Sep 2014, Berlin, Germany

Kinast, Jan; Hartung, Johannes; Gebhardt, Andreas

**Tutorial „Freeform Metal Optics“**

ICSO 2014 International Conference on Space Optics, 7.-10.10.2014, Tenerife, Spain

Kinast, Jan; Beier, Matthias; Gebhardt, Andreas

**Untersuchungen von Chemisch Nickel-Abscheidungen für optische Anwendungen**

DGO Bezirksgruppentreffen, 11.11.2014, Ilmenau, Germany

Kinast, Jan; Beier, Matthias; Gebhardt, Andreas; Tünnermann,

Andreas

**Ultrapräzise Fertigung von Metalloptiken basierend auf hochphosphorhaltigen Chemisch Nickel-Schichten**

Oberflächentage 2014, 17.-19.9.2014, Düsseldorf, Germany

Kinast, Jan; Grabowski, Kevin; Gebhardt, Andreas; Rohloff, Ralf-Rainer; Risze, Stefan; Tünnermann, Andreas

**Dimensional Stability of Metal Optics on Nickel Plated AISi40**

ICSO 2014 International Conference on Space Optics, 7.-10.10.2014, Tenerife, Spain

Kinast, Jan; Hilpert, Enrico; Lange, Nicolas; Gebhardt, Andreas; Rohloff, Ralf-Rainer; Risze, Stefan; Eberhardt, Ramona;

Tünnermann, Andreas

**Minimizing the bimetallic bending for cryogenic metal optics based on electroless nickel**

SPIE Proceedings Vol. 9151 (2014) 915136, ISBN 9780819496195

Klein, A. E.; N. Janunts, C. Schmidt, M. Liebsch, A. Minovich, D. Neshev, Y. Kivshar, T. Pertsch

**Scanning probe techniques for optical near-field microscopy below the diffraction limit**

JSMC Symposium, 2. - 3. Sep 2014, Jena, Germany

Klenke, Arno; Hädrich, Steffen; Limpert, Jens; Tünnermann, Andreas

**Spatially Separated Non-linear Pulse Compression**

Proceedings CLEO: Science and Innovations, 8.-13.6.2014, San Jose, USA, SF2N, ISBN 978-1-55752-999-2

Klenke, Arno; Hoffmann, Armin; Hädrich, Steffen; Eidam, Tino; Gottschall, Thomas; Limpert, Jens; Tünnermann, Andreas

**2.1mJ 210W femtosecond fiber CPA system**

SPIE Proceedings Vol. 8961 (2014) 89611D, ISBN 9780819498748

Klenke, Arno; Jan Rothhardt, Tino Eidam, Stefan Demmler, Marco Kienel, Thomas Gottschall, Steffen Hädrich, Jens Limpert, Andreas Tünnermann

**22GW peak-power femtosecond fiber CPA system**

Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China

Klenke, Arno; Jan Rothhardt, Tino Eidam, Stefan Demmler, Marco Kienel, Thomas Gottschall, Steffen Hädrich, Jens Limpert and Andreas Tünnermann

**22GW peak-power femtosecond fiber CPA system**

Europhoton, 24. - 29. Aug 2014, Neuchatel, Schweiz

Klenke, Arno; Steffen Hädrich, Tino Eidam, Marco Kienel, Sven Breitkopf, Jens Limpert and Andreas Tünnermann

**Spatial-temporal multiplexing for overcoming limitations in non-linear compression**

International Conference on Ultrahigh Intensity Lasers (ICUIL), 12. - 17. Okt 2014, Goa, Indien

Kliner, Andrea; Krämer, Ria G.; Voigtländer, Christian; Theuer, F.; Schreiber, Thomas; Eberhardt, Ramona; Nolte, Stefan; Tünnermann, Andreas

**Spatially resolved 3D-measurements of long-period gratings written by fs-laser inscription in large mode area fibers**

SPIE Photonics West 2014, 1.-6.2.2014, San Francisco, USA (SPIE LASE), SPIE Proceedings Vol. 8961 (2014) 89612I, ISBN 9780819498748

Krebs, Manuel; Jan Rothhardt, Steffen Hädrich, Arno Klenke, Stefan Demmler, Tino Eidam, Armin Hoffmann, Jens Limpert, Andreas Tünnermann

**53 W Average Power Energetic Few-Cycle Pulses for High-Field Physics**

Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China

Krebs, Manuel; Steffen Hädrich, Armin Hoffmann, Arno Klenke, Jan Rothhardt, Jens Limpert, Andreas Tünnermann

**Compact 10 MHz, 140 MW Peak Power Source Enabling Bright High Harmonic Generation**

Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China

Kroker, Stefanie; Käsebier, Thomas; Kley, Ernst-Bernhard; Tünnermann, Andreas

**Investigation on the angular dependent reflectance of coupled high-contrast gratings**

SPIE Proceedings Vol. 8995 (2014) 89950B, ISBN 9780819499080

Kroker, Stefanie; Kley, Ernst-Bernhard; Tünnermann, Andreas

**Thermal noise of silicon based grating reflectors for high-precision metrology**

Metrology for Aerospace (MetroAeroSpace) 29.-30.5.2014, Benevento, Italy, 523-527, ISBN 1479920711

Kruk, Sergey S.; Podlubny, Alexander N.; Helgert, Christian; Decker, Manuel; Powell, David Anthony; Pertsch, Thomas; Neshev, Dragomir N.; Kivshar, Yuri S.

**Polarization phenomena in periodic metasurfaces at**

## NAMEN, DATEN, EREIGNISSE | NAMES, DATA, ACTIVITIES

### oblique incidence

Proceedings 2014 8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, Metamaterials 2014, p. 373-375, ISBN: 978-147993452-2

Kühmstedt, Peter; Notni, Gunther

### Hochdynamische optische 3D-Messtechnik

Fraunhofer-Allianz VISION Technologietag 2014 „Innovative Technologien für die industrielle Qualitätssicherung mit Bildverarbeitung“, 15.-16.10.2014, München, Deutschland

Kumkar, M.; Bauer, L.; Russ, S.; Wendel, M.; Kleiner, J.; Grossmann, D.; Bergner, K.; Nolte, S.

### Comparison of different processes for separation of glass and crystals using ultrashort pulsed lasers

SPIE Proceedings Vol. 8972 (2014) Article number 897214, ISBN 978-081949885-4

Kumkar, M.; M. Kaiser, J. Kleiner, D. Grossmann, D. Flamm, K. Bergner, S. Nolte

### Cutting of Transparent Materials by Tailored Absorption

Advanced Solid State Lasers (ASSL), 16. - 21. Nov 2014, Shanghai, China

Lancry, Matthieu; Desmarchelier, Rudy; Zimmermann, Felix; Guth, Niclas; Brisset, François; Nolte, Stefan; Poumellec, Bertrand

### Porous nanoratings and related form birefringence in silicate and germanate glasses

Bragg Gratings, Photosensitivity, and Poling in Glass Waveguides, 27.-31.6.14, Barcelona, Spain, ISBN 9781557528209

Langguth, Christin; Oberdörster, Alexander; Brückner, Andreas; Wippermann, Frank; Bräuer, Andreas

### Optical performance analysis of plenoptic camera systems

SPIE Optical Engineering + Applications, 17.-21.8.2014, San Diego, California, USA

SPIE Proceedings Vol. 9192 (2014) 91920F-8, ISBN 9781628412192

Lehneis, R.; C. Jauregui, A. Steinmetz, J. Limpert, and A. Tünnermann

### All-fiber concept for ultrashort pulses from a passively Q-switched Nd: YVO<sub>4</sub> microchip laser

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Lehr, Dennis; Filter, Robert; Alaee, Rasoul; Dietrich, Kay; Rockstuhl, Carsten ; Lederer, Falk ; Kley, Ernst-Bernhard; Tünnermann, Andreas

### Enhancing the Efficiency of Upconversion by Double-Resonant Plasmonic Nanorings

Optical Nanostructures and Advanced Materials for Photovoltaics, 2.-5.12.2014, Canberra, Australia  
Conference Paper, PTh2C, ISBN 978-1-55752-756-1

Leitel, Robert; Brückner, Andreas; Buss, Wolfgang; Bräuer, Andreas

### Curved artificial compound-eyes for autonomous navigation

SPIE Photonics Europe, 14.-17.4.2014, Brussels, Belgium  
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Limpert, J.

### Performance scaling of femtosecond fiber-laser systems

Advanced Lasers and Their Applications (ALTA), 24. - 31. Mai 2014, Jeju, Korea

Limpert, J.

### A path towards Joule-class high repetition rate ultrafast fiber laser systems

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### Performance Scaling of Ultrafast Fiber Laser Systems

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### Israel Performance Scaling of Ultrafast Fiber Laser Systems

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### A path to Joule-class high repetition rate ultrafast lasers

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### High-Flux Fiber-Laser Driven Table-top EUV sources (High Performance few-cycle pulses)

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Rank Prize Funds Opto-electronic Materials for the New Millenium Conference, 14. - 16. Jun 2014, Grasmere, England
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**Very steep asphere mirrors for short wavelength applications**  
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- Mac Cianain, Rossa; Michaelis, Dirk; Wehlus, Thomas; Rausch, Andreas; Danz, Norbert  
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- Menzel, C.; K. Dietrich, D. Lehr, O. Puffky, U. Hübner, A. Tünnermann, E.-B. Kley, T. Pertsch  
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- Minardi, S.; A. Saviauk, F. Dreisow, S. Nolte, T. Pertsch  
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Nolte, S.; F. Zimmermann, S. Richter, A. Plech, U. Peschel, A. Tünnermann

**Ultrashort pulse induced nanogratings – fundamentals and applications**

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Notni, Gunther

**Anwendung der Computertomographie für die Prüfung optischer Komponenten und Systeme**

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Notni, Gunther

**Innovationsallianz 3Dsensation: 3D-Technologien in den Zukunftsfeldern Gesundheit, Mobilität, Sicherheit und Produktion**

Spectaris Herbsttagung der Fachgruppen der Photonik, 9.9.2014, Berlin, Deutschland

Notni, Gunther

**Messen mit Computertomographie in der optischen Industrie**

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Notni, Gunther

**Mikrooptik basierte Aufnahmesysteme für die hochdynamische 3D-Erfassung**

55. Heidelberger Bildverarbeitungsforum: Praxistaugliche Bildverarbeitung: Messen, Modellieren und Lernen, 1.7.2014, Jena, Deutschland

Notni, Gunther; Bräuer-Burchardt, Christian; Kühmstedt, Peter  
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Notni, Gunther

**Joint research and education in photonic micro systems with industrial image processing**

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**wafer-level multi-aperture camera systems**

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Otto, Hans-Jürgen; Jauregui, Cesar; Stutzki, Fabian; Modsching, Norbert; Limpert, Jens; Tünnermann, Andreas

**Yb-doped Rod-type Fiber Amplifier with 2 kW Average Power**

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Otto, Hans-Jürgen; Klenke, Arno; Jauregui, Cesar; Stutzki, Fabian; Limpert, Jens; Tünnermann, Andreas

**4-fold Increase of the Mode-instability Threshold in an Yb-doped Multi-core Fiber Amplifier Emitting 536 W**

Proceedings CLEO: Science and Innovations, 8.-13.6.2014, San Jose, USA, STh4N, ISBN 978-1-55752-999-2

Otto, H.-J.; Arno Klenke, C. Jauregui, F. Stutzki, J. Limpert, A. Tünnermann

**Mode instabilities in high-power fiber lasers**

Rank Prize Funds Opto-electronic Materials for the New Millennium Conference, 14. - 16. Jun 2014, Grasmere, England

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**Increase of the mode-instabilities threshold in a multi-core fiber**

Conference on Lasers and Electro Optics (CLEO), 8. - 13. Jun 2014, San Jose, USA

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- Rothhardt, J.; S. Hädrich, A. Klenke, S. Demmler, T. Eidam, A. Hoffmann, J. Limpert, and A. Tünnermann  
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## **Optical Scattering**

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Schröder, Sven; Katsir, Dina; Zeitner, Uwe; Duparré, Angela

### **Light Scattering of Optical Components for Space Applications**

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Schröder, Sven; Trost, Marcus; Duparré, Angela

### **Origins of light scattering in thin film coatings**

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Schröder, Sven; Trost, Marcus; Herffurth, Tobias; Duparré, Angela

### **Evaluation of surface roughness, homogeneity, and defects using light scattering techniques**

SPIE COS Photonics Asia, 9.-11.10.2014, Beijing, China

Schröder, Sven; von Finck, Alexander; Katsir, Dina; Zeitner, Uwe; Duparré, Angela

### **Light scattering characterization of optical components - BRDF, BTDF and scatter losses**

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Schröder, Sven; von Finck, Alexander; Katsir, Dina; Zeitner, Uwe; Duparré, Angela

### **Light scattering characterization of optical components - BRDF, BTDF and scatter losses**

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Schröder, Sven; von Finck, Alexander; Unglaub, David; Duparré, Angela

### **System zur hochsensitiven spektral- und winkelaufgelösten Streulichtmessung an optischen Komponenten**

115. DGaO Jahrestagung, 10.-14.6.2014, Karlsruhe, Germany

Schulz, Ulrike

### **Advanced Antireflection Coatings**

12. OPTATEC, 20.-22.5.2014, Frankfurt a.M., Germany

Schulz, Ulrike

### **Organische Schichtsysteme für die Entspiegelung optischer Oberflächen**

10. Thüringer Grenz- und Oberflächentage mit 4. Optik-Kolloquium, 2.-4.9.2014, Leipzig, Deutschland

Schulz, Ulrike

### **Reflexminderung von optischen Oberflächen: Innovative Lösungen durch Plasmatechnik**

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Schulz, Ulrike; Bruynoghe, Stephane; Tonova, Diana; Rickelt, Friedrich; Munzert, Peter; Kaiser, Norbert

### **Optical characterization of nanostructures for advanced antireflection coatings**

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Schulz, Ulrike; Munzert, Peter; Präfke, Christiane; Rickelt, Friedrich; Kaiser, Norbert

### **Optical coatings on polycarbonate for automotive applications**

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Schürmann, Mark; Jobst, Paul Johannes; Schwinde, Stefan; Franke, Christian; Gäbler, Dieter, Schlegel, Ralph; Kaiser, Norbert

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### **Metal mirrors for laser applications**

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Schürmann, Mark; Schwinde, Stefan; Jobst, Paul Johannes; Stenzel, Olaf, Wilbrandt, Steffen; Yulin, Sergiy; Szeghalmi, Adiana Viorica; Bingel, Astrid; Munzert, Peter; Kaiser, Norbert

### **High-reflective coatings for ground and space based applications**

ICSO 2014 International Conference on Space Optics, 7.-10.10.2014, Tenerife, Spain

Schwinde, Stefan; Jobst, Paul Johannes; Schürmann, Mark; Kaiser, Norbert; Tünnermann, Andreas

### **Silberbeschichtungen für terrestrische und extraterristische Teleskope**

10. Thüringer Grenz- und Oberflächentage mit 4. Optik-

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Schwinde, Stefan; Jobst, Paul Johannes; Schürmann, Mark; Stenzel, Olaf; Kaiser, Norbert <b>UV enhanced Silver for ground and space based applications</b>	<b>Exploiting the phase properties of Bloch surface waves on photonic crystals for efficient optical sensing</b> SPIE Proceedings Vol. 9141 (2014) 91410E, ISBN 9781628410891
Astronomical Telescopes and Instrumentation, 23.-27.6.2014, Montreal, Canada	Staude, I.; M. Decker, M. Falkner, J. Dominguez, D. N. Neshev, I. Brener, T. Pertsch, Y. S. Kivshar <b>All-dielectric Huygens' Metasurfaces for High-Efficient Wave Manipulation</b> Australian Institute of Physics Congress, 7. - 11. Dez 2014, Canberra, Australia
Sergeyev, Anton; Geiss, Reinhard; Kley, Ernst-Bernhard; Pertsch, Thomas; Grange, Rachel <b>Local fluorescent dye excitation with guided second-harmonic in lithium niobate nanowires</b>	Staude, I.; M. Decker, M. Falkner, J. Dominguez, D. N. Neshev, I. Brener, T. Pertsch, Y. S. Kivshar <b>High-Transmittance All-Dielectric Huygens' Metasurfaces</b> SPIE Optics&Photonics, 17. - 21. Aug 2014, San Diego, USA
Proceedings CLEO: Science and Innovations, 8.-13.6.2014, San Jose, USA, ISBN 9781557529992	Steglich, Martin; Käsebier, Thomas; Zilk, Matthias; Kley, Ernst-Bernhard; Tünnermann, Andreas <b>Black Silicon by ICP-RIE and its prospects in photovoltaics</b> Optical Nanostructures and Advanced Materials for Photovoltaics, 2.-5.12.2014, Canberra, Australia Conference Paper, PTu2C, ISBN 978-1-55752-756-1
Sergeyev, A.; R. Geiss, A. Solntsev, E.-B. Kley, T. Pertsch, R. Grange <b>Dye excitation with generated and guided second harmonic in lithium niobate nanowires</b>	Steinbrück, A.; J.-W. Choi, S. Fasold, C. Menzel, A. Sergeyev, T. Pertsch, R. Grange <b>A plasmonic optofluidic device for multiplexing heat-induced applications</b> EOSAM, 15. - 19. Sep 2014, Berlin, Germany
Shcherbakov, M. R.; A. S. Shorokhov, A. A. Fedyanin, J. Reinhold, C. Helgert, T. Pertsch, J. Dominguez, I. Brener, D. Neshev, I. Staude, A. Miroshnichenko, Y. Kivshar <b>Third harmonic generation in metamaterials: a probe for optical magnetism</b>	Steinkopf, Ralf; Gebhardt, Andreas; Risse, Stefan; Eberhardt, Ramona <b>Structured freeforms challenge manufacturing technologies</b> Euspen, Special Interest Group: Structured & Freeform Surfaces, 19.-20.11.2014, Padova, Italy
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Wilbrandt, Steffen; Stenzel, Olaf; Kaiser, Norbert

**Ex situ characterization of optical coatings by means of spectrophotometry**

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