

Vorträge von Wissenschaftlern des Fraunhofer ILT im Jahr 2018

(Stand: 18.02.2019)

Januar

29.01.2018 – Poprawe, R.: Digital Photonic Production along the lines of Industry 4.0
Photonics West 2018, San Francisco, CA, USA

30.01.2018 – Martin, H.: Automated and model-based assembly of an anamorphic
telescope, SPIE Photonics West, San Francisco, USA

31.01.2018 – Bonhoff, T.: Multi-physical modeling of thermal and dispersive effects in
optical systems for high power ultra-short laser pulses, SPIE Photonics West, San
Francisco, USA

31.01.2018 – König, G.: Development of an adaptive laser beam shaper, SPIE Photonics
West, San Francisco, USA

31.01.2019 – Fitzau, O.: Directly q-switched high power resonator based on XLMA-
fibers, SPIE Photonics West, San Francisco, USA

31.1.2018 – Kalupka, C.: Ultrafast Dynamics of Material Excitation of Dielectrics with
Ultrashort Pulsed Bessel Beams, Photonics West, San Francisco

Februar

21.02.2018 – Schleifenbaum, J.: Additive Manufacturing and the agile production
company, Vortrag, Düsseldorf, Deutschland

28.03.2018 – Schleifenbaum, J.: Integrated AM Quality Assurance, Vortrag,
Schaumburg, USA

März

05.03.2018 – Walochnik, M.: Pump-power scaling of a diode-pumped Alexandrite
laser, DPG-Tagung Erlangen'18, Erlangen, Deutschland

06.03.2018 – Connemann, S.: Next generation urban mining – laser-based sensing and
sorting of electronic scrap, SBSC 2018, Aachen, Deutschland

13.03.2018 – Rittinghaus, S.-K.: Laser Additiv Manufacturing of Titanium Aluminides,
TMS2018, Arizona, USA

14.03.2018 – Poprawe, R.: Digital Photonic Production along the lines of Industry 4.0
Laser World of Photonics, Shanghai, China

15.03.2018 – He, C.: Ultra-high quality helical drilling and cutting with beam-profile independency within the industrial manufacturing, 13th International Laser Processing and Systems Conference, Shanghai, China

15.03.2018 – Pichler, T.: Increasing Productivity of Laser Powder Bed Fusion (L-PBF) by Qualifying and Processing Different Powder Qualities, DDMC Berlin

15.03.2018 – Schmithüsen, T.: Automatable Support Removal and Surface Smoothing of Additive Manufactured Parts Made of AlSi10Mg, DDMC Berlin

15.03.2018 – Schniedenharn, M.: On the Correlation of the Shielding Gas Flow in L-PBF Machines with Part Density

20.03.2018 – Noll, R.: Inverse production line for the automated dismantling of mobile phones with selective laser-based detaching and sorting of valuable components, Berliner Recycling- und Rohstoffkonferenz 2018, Berlin, Deutschland

21.03.2018 – Poprawe, R.: Perspektiven zur Skalierung von UKP-Lasern im Multi-kW-Bereich und deren Anwendung, 4. MikroLas Innovationsforum, Rostock

27.03.2018 – Kelbassa, J.: Wire vs. Powder in LMD, Laser additive Manufacturing Conference (LAM), Schaumburg, IL USA

28.03.2018 – Schleifenbaum, J.: Integrated AM Quality Assurance, Vortrag, Schaumburg, USA

April

10.04.2018 – Poprawe, R.: Quanten-Computing und Post-Quantenkryptographie, Fokustag „Quantentechnologie“, Fraunhofer ZV München

18.04.2018 – K. van der Straeten: “Comparison of Laser-based joining approaches for plastic-metal-hybrids – Strength vs. Process speed”, Hybrid Materials and Structures 2018, Bremen

19.04.2018 – Rittinghaus, S.-K.: Laser Additive Manufacturing für die gradierte Herstellung intermetallischer Materialien, 3. Internationale Konferenz Hybrid – Materials and Structures, Bremen

19.04.2018 – Weisheit, A.: Laser Additive Manufacturing of Aluminium Alloys, AMAP Forum 2018, Aachen

19.04.2018 – Poprawe, R.: The future of Digital Photonic Production, Frontiers in Lasers and Applications, Okinawa, Japan

23.04.2018 – Poprawe, R.: What am I doing? - How to present your work, Ishigaki Conference, OPIC, Japan

23.04.2018 – J. Finger: “Scaling Strategies for Surface Structuring using High Power USP Lasers”, Photonics Europe 2018, Strasbourg

27.04.2018 – Braun, K.: LASERBASIERTE FORMKORREKTUR VON QUARZGLASOPTIKEN - LASER BEAM FIGURING (LBF); Optence Mitgliederversammlung, Königernheim

Mai

02.05.2018 – Weisheit, A.: Materials Engineering for laser additive manufacturing, AKL`18 Laser Technology Congress, Forum Additive Manufacturing, Aachen

03.05.2018 – J. Finger: “Microstructuring for the Automotive Industry”, AKL 2018, Aachen

03.05.2018 – Poprawe, R.: Digitale Photonische Produktion –Die Zukunft der Laser-Materialbearbeitung, AKL 2018, Aachen

04.05.2018 – Schneider, F.: CFK stellt Ansprüche – auch an das Laserstrahlschneiden, AKL 2018, Aachen

04.05.2018 – Schleifenbaum, J.H.: LASER-BASED SURFACE COATING FOR INDUSTRIAL CONNECTION TECHNOLOGY AND ELECTRONICS, Aachener Kolloquium für Lasertechnik AKL`18, Aachen

04.05.2018 – Kumstel, J.: Laserpolieren und Laserkantenveredelung von Metallen, Judith Kumstel, 6. Fachtagung Entgrattechnologien und Präzisionsoberflächen in Nürtingen

14.05.2018 – Rolf Wester: “Solving the Monge-Ampere equation on triangle-meshes for use in optical freeform design”, SPIE Optical Systems Design 2018, Frankfurt

15.05.2018 – Völl, A.: Free-form optics for non-idealized light sources in 3D: a phase-space approach, SPIE Optical System Design & Besuch Messe Optatec, Frankfurt

16.05.2018 – Poprawe, R.: Latest advancements and actual perspectives of Additive Manufacturing, Beijing University of Technology Beijing, China

22.05.2018 – Poprawe, R.: The future of Digital Photonic Production, Global Intelligent Industry Conference, Beijing, China

Juni

06.06.2018 – Puetsch, O.: Optical Systems for Massive Parallel Processing: Design and Simulation, Landesmesse Stuttgart GmbH, Stuttgart

06.06.2018 – Schniedenharn, M.: Einfluss des Einfallswinkels der Laserstrahlung auf die Positionsabhängigkeit der Bauteilqualität im L-PBF Prozess

08.06.2018 – Jauer, L.: Additive Manufacturing of Magnesium Alloys (for Biomedical Application), Einweihung Laborneubau Metallische Biomaterialien des Helmholtz-Zentrums Geesthacht

13.06.2018 – Schleifenbaum, J.: Future Trends in Additive Manufacturing, Vortrag, Photonics 4 Industry , Genf, Schweiz

18.06.2018 – Masseling,L.: Additive Manufacturing of Honeycomb Seal Strips, Turbo Expo 2018, American Society of Mechanical Engineers (ASME), Lillestrom Norway

22.06.2018 – Schulz, W.: Mathematical Model Reduction using Inertial Manifold concept applied to digitalization of laser processing, MyRes2018 Conference, Mauritius

24.06.2018 – Küpper, M.: Laser polishing of cold work steel AISI D2 for dry metal forming tools: Surface homogenization, refinement and preparation for self-assembled monolayers; ICTMP, Helsingör, Dänemark

25.06.2018 – K. van der Straeten: „Influence of climatic changes on the joint strength of laser joined plastic-metal-hybrids“, LPM 2018, Edinburgh

26.06.2018 – Brenner, A.: Increasing productivity of ultrashort pulsed laser ablation for a combination process with ns-laser, LPM 2018, Edinburgh (UK)

26.06.2018 – Hollatz, S.: Measurement of Keyhole Depth during Laser Beam Micro Welding with Scanners, LPM 2018, Edinburgh (UK)

26.06.2018 – Bornschlegel, B.: In-Situ Analysis of USP Ablation with High Repetition Rates, LPM 2018, Edinburgh, Schottland

26.06.2018 – Küpper, M.: Laser polishing of cold work steel AISI D2 for dry metal forming tools: Surface homogenization, refinement and preparation for self-assembled monolayers, Konferenz ICTMP Helsingör, Dänemark

26.06.2018 – He, C.: High-efficiency sub-micrometer multi-beam interference structuring for large-scale surface using ultrashort laser pulses, 19th International Symposium on Laser Precision Microfabrication, Edinburgh, Schottland

26.06.2018 – Poprawe, R.: Industry 4.0 – Next generation Ultrafast Laser Systems and Ablation Applications, AOMATT, 9. Internationals Symposium, Chengdu, China

28.6.2018 – Kalupka, C.: Ultrashort Pulse Processing of Transparent Ceramics: The Role of Electronic and Thermal Damage Mechanisms, Laser Precision Microfabrication 2018, Edinburgh

Juli

12.07.2018 – Poprawe, R.: Perspectives of Additive Manufacturing L-PBF in the course of Industry 4.0, Wissenschaftsnacht, Aachen

16.07.2018 – Poprawe, R.: Perspectives of Additive Manufacturing L-PBF and LAM in the course of Industry 4.0, Karmann Conference, Bergisch Gladbach

16.07.2018 – Hollatz, S.: Investigation of Laser Micro Welding of Aluminium and Copper Butt Joints using Spatial Power Modulation, IIW 2018, Bali

18.07.2018 – Petring, D.: Gaining deeper insight into laser beam cutting by process simulation and diagnostics, IFSW Macro Workshop 2018, Freudenstadt

18.07.2018 – Helm, J.: Influence of the Surface Properties on the Reliable and Reproducible Contacting of Battery Cells with a Laser Beam Welding Process, 71st IIW Annual Assembly & International Conference, Bali

18.07.2018 – K. van der Straeten: "Influence of self-organizing microstructures on the wettability of molten plastic on steel for hybrid plastic-metal-joints", IIW Annual Assembly 2018, Bali

23.07.2018 – Masseling, L.: Advancing Precision in Additive Manufacturing, 2018 ASPE and euspen Summer Topical Meeting, American Society of Precision Engineers (ASPE), Lawrence Livermore Berkeley Lab, Berkeley USA

26.07.2018 – Poprawe, R.: Latest advancements and actual perspectives of Additive Manufacturing, Additive Manufacturing Conference, Hangzhou, China

August

01.08.2018 – Poprawe, R.: Ultrafast Laser Processing in the multi-KW-range –why and what for? International Academy of Photonics & Laser Engineering, Kapstadt, Südafrika

21.08.2018 – Barthels, T.: High precision ultrashort pulsed laser drilling of thin metal foils by means of multibeam processing, SPIE Konferenz, San Diego

22.08.2018 – Brenner, A.: Increasing productivity of ultrashort pulsed laser ablation for commercialization of micro structuring, SPIE Optics + Photonics 2018, San Diego (USA)

29.08.2018 – Poprawe, R.: Latest advancements and actual perspectives of Additive Manufacturing, Summer School, Aachen

September

05.09.2018 – K. van der Straeten: „Polygon scanning system for high-power, high-speed microstructuring“, LANE 2018, Fürth

05.09.2018 – Hofmann, O: Model-based analysis of highly dynamic laser beam shaping using deformable mirrors, 10th CIRP Conference on Photonic Technologies (LANE 2018), Fürth

05.09.2018 – Bonhoff, T: Multi-physical analysis of thermo-optical effects for different Selective Laser Melting (SLM) scanning strategies, 10th CIRP Conference on Photonic Technologies (LANE 2018), Fürth

- 11.09.2018 – Maischner, D.:** Two Step Laser Coating for 3D Surfaces and Large Areas, Forschungskolloquium DVS, RWTH Aachen University, Aachen
- 12.09.2018 – Willenborg, E.:** Laser Beam Figuring (LBF) for form correction of glass optics; LaP 2018, Aachen
- 12.09.2018 – Schleifenbaum, J.:** DPP – perspectives on tomorrow's world of individualized & smart industrial products, Vortrag, -> IMTS, Chicago, USA
- 13.09.2018 – Nüsser, C.:** Laser micro polishing of metals: process fundamentals; LaP 2018, Aachen
- 13.09.2018 – Braun, K.:** LASER POLISHING OF POLYMER PARTS MANUFACTURED BY SLS AND FDM; LAP 2018, Aachen
- 14.09.2018 – Danylyuk, S.:** Are short wavelengths the future of semiconductor metrology? 16th Fraunhofer IISB Lithography Simulation Workshop, Gräfenberg, Germany
- 19.09.2018 – Danylyuk, S.:** Actinic laboratory EUV tools for mask and pellicle metrology, SPIE International Conference on Extreme Ultraviolet Lithography, Monterey, USA
- 19.09.2018 – Poprawe, R.:** Kuratoriumspräsentation, Kuratoriumssitzung, Aachen
- 20.09.2018 – Poprawe, R.:** Stimulierte Innovation am Beispiel Digital Photonic Production in Aachen, Fachtagung zur Förderinitiative Forschungscampus, Berlin
- 20.09.2018 – Bauer, C.:** On the Imposition of Dirichlet Boundary Conditions at Moving Boundaries with Applications in Laser Processing, MESIGA2018 Conference, Berlin
- 20.09.2018 – Küpper, M. (stellvertretend für Kumstel, J.):** Deburring and rounding of sheet metals and functionally relevant edges of parts using laser radiation; ICNFT, Bremen
- 24.09.2018 – Poprawe, R.:** Professor Dr. Eckhard Beyer – 2018, Ehrenkolloquium, Dresden
- 24.09.2018 – Tenbrock, C.:** Laser Powder Bed Fusion at Fraunhofer ILT, GM Additive Manufacturing Event, Turin, Italien
- 25.09.2018 – Brose, S.:** High-resolution patterning by EUV interference lithography with a compact exposure tool, Micro- and Nanoelectronic Days, Kopenhagen, Dänemark
- 26.09.2018 – Schleifenbaum, J.:** Aktuelle und zukünftige Entwicklungen im metallischen 3D Druck, Vortrag, 3D Valley Conference, Aachen, Deutschland
- 26.09.2018 – Gayer, C.:** Micro Powder Bed Fusion (μ -PBF) Höchste Präzision für kleinste Teile, 3D Valley Conference 2018, Aachen
- 26.09.2018 – Fuchs, F.:** LASER-BASED SURFACE COATING FOR INDUSTRIAL CONNECTION TECHNOLOGY AND ELECTRONICS, 2. Praxisforum 3D-Gedruckte Elektronik, Würzburg

28.09.2018 – Poprawe, R.: Digital Photonic Production-Zukunft gestalten mit Fraunhofer, Alumni Summit, Eurogress Aachen

28.09.2018 – Schleifenbaum, J.: Skalierung und Optimierung von AM Prozessen für die nächste metallische Bauteilgeneration, Vortrag, Fraunhofer-Alumni-Summit 2018 Aachen, Deutschland

Oktober

08.10.2018 – Gayer, C.: Additive Manufacturing of Magnesium Alloys with Laser Powder Bed Fusion, 26. Magnesium User- und Automotive Seminar 2018, Düsseldorf

09.10.2018 – Strotkamp, M.: Diode-Pumped Alexandrite Laser Instrument for Next Generation Satellite-Based Earth Observation, International Conference on Space Optics (ICSO), Kreta, Griechenland

10.10.2018 – Poprawe, R.: Material, Design and Scaling of Additive Manufacturing, Funktionale Materialien für die additive Fertigung, 5. Ruhr-Symposium, Duisburg

15.10.2018 – Poprawe, R.: 50 Years of the Laser Institute of America ICALEO, Orlando

15.10.2018 – Saewe, J.: Feasibility Investigation for Laser Powder Bed Fusion of High-Speed Steel, Euro PM2018 Congress & Exhibition, Bilbao, Spanien

15.10.2018 – Vogelpoth, A.: Development of adapted ni-738 powder for additive manufacturing

16.10.2018 – Kelbassa, J.: Equipment and Process Windows for Laser Metal Deposition with Coaxial Wire Feeding, 37th International Congress on Applications of Lasers & Electro-Optics (ICALEO), Orlando, FL USA

16.10.2018 – Schopphoven, T.: Business Case: Extreme High Speed Cladding, 37th International Congress on Applications of Lasers & Electro-Optics (ICALEO), Orlando, FL USA

November

06.11.2018 – K. van der Straeten: „Metal meets Composites – Laser-based Joining of Hybrid Materials“, Lightweight Technologies Forum, Composites Europe, Stuttgart

15.11.2018 – Saewe, J.: Feasibility Investigation for Laser Powder Bed Fusion of High-Speed Steel AISI M50 with Base Plate Preheating System, Metal Additive Manufacturing Conference 2018, Wien, Österreich

15.11.2018 – Vogelpoth, A.: VCSEL-based preheating for laser powder bed fusion (LPBF)

16.11.2018 – S. Hollatz: Efficient contacting of battery cells to produce modules and packs for power tools and electric vehicles, IBPC 2018, Braunschweig

16.11.2018 – Gayer, C.: Additive Fertigung von biologisch abbaubaren Implantaten, Kindertraumatologisches Symposium, Aachen

22.11.2018 – Poprawe, R.: Digital Photonic Production along the lines of Industry 4.0, Metal Additive Manufacturing Conference, Wien

23.11.2018 – Gasser, A.: Laser Metal Deposition for Industrial Applications in the Area of Repair, Coating and Additive Manufacturing, International Symposium on Structure Reliability and Systems Engineering Technologies of Railway Vehicle, Changchun, China.

23.11.2018 – Braun, K.: LASERBASIERTE FORMKORREKTUR (LASER BEAM FIGURING) VON OPTIKEN AUS QUARZGLAS; 11. Jenaer Lasertagung, Jena

23.11.2018 – Kumstel, J.: Laserpolieren und Laserkantenveredelung von Metallen, 7. Fachtagung Entgrattechnologien und Präzisionsoberflächen in Lüdenscheid

Dezember

01.12.2018 – Poprawe, R.: Präzisionswerkzeuge aus Laserlicht verändern unsere Welt, RWTH Aachen, Aachen

07.12.2018 – Poprawe, R.: IDM Joint Lab Tsinghua University – RWTH Aachen, Hangzhou Conference, China

09.12.2018 – Poprawe, R.: The future of Digital Photonic Production by Smart Laser Materials Processing, Nanjing Conference, China

13.12.2018 – Poprawe, R.: TOP 14 Kooperationsoffensive Universitäten, Präsidiumssitzung, Dresden

14.12.2018 – Poprawe, R.: Universitäten und Fraunhofer – Best Practice in IME und ILT, Präsidiumssitzung, Dresden