

Publikationen

- (2020): Observation of pressure distribution between tool and surface in different polishing situations. In: Proceedings of SPIE Optical Engineering + Applications (24 August - 04 September, 20208; Optical Manufacturing and Testing XIII; online conference), San Diego, United States, vol. 11487. DOI: 10.1117/12.2567885.
- (2020): Octopus: A simple and effective tool for polishing slurry monitoring. In: Proceedings of SPIE Optical Engineering + Applications (24 August - 04 September, 20208; Optical Manufacturing and Testing XIII; online conference), San Diego, United States, vol. 11487. DOI: 10.1117/12.2567952.
- (2020): Application of a pressure measuring film for pressure observation in overarm polishing. In: Proceedings of EOSAM 2020 (European Optical Society Biennial Meeting; 7-11 September 2020; online), vol. 238. DOI: 10.1051/epjconf/202023803003.
- (2020): Interferometric measurement with robot kinematics. In: Proceedings of SPIE Optical Engineering + Applications (24 August - 04 September, 20208; Optical Manufacturing and Testing XIII; online conference), San Diego, United States, vol. 11487. DOI: 10.1117/12.2568348.
- (2020): Hybrid-process-chain for polishing optical glass lenses - HyoptO. In: Proceedings of SPIE Optical Engineering + Applications (24 August - 04 September, 20208; Optical Manufacturing and Testing XIII; online conference), San Diego, United States, vol. 11487. DOI: 10.1117/12.2568400.
- (2020): First steps towards an automated polishing process chain using one robot. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2564840.
- (2020): Force and pressure analysis during overarm polishing. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2564903.
- (2020): Mid spatial frequency error prevention strategies for the grinding process. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2565261.
- (2020): On the metrology and analysis of MSF error. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2566251.
- (2020): Non-ablative removal of sub surface damages in ground optical glass substrates by controlled melting of thin surface layers using CO₂-laser radiation. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2564801.
- (2020): Concept of a two-part clamping system for lenses in optical metrology. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2566547.
- (2020): Cutting high-performance materials with ultrasonically modulated cutting speed. In: Proceedings of SPIE 11478 (Seventh European Seminar on Precision Optics Manufacturing [8 July 2020; Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2565757.
- (2020): Zerspanung von Hochleistungswerkstoffen mit ultrasonisch modulierter Schnittgeschwindigkeit. In: ZWF - Zeitschrift für wirtschaftlichen Fabrikbetrieb, vol. 115, no. 3, pp. 2-5. DOI: 10.3139/104.112255.
- (2019): Analysis of residual errors during computer controlled polishing. In: EOS Optical Technologies: Conference on Manufacturing, Tolerancing and Testing of Optical Systems (MOS) – Session 7: Plenary Session, München.

- (2019): Ultraschallunterstützte Zerspanung von Advanced Materials. In: 3. Wissenschaftliches Forum zur ULTRASONIC-Bearbeitung, Jena.
- (2019): Clamping system for optical components for adaptation in optical production. In: 10th HLEM 2019 - High Level Expert Meeting Asphere Metrology on Joint Investigations, Braunschweig.
- (2019): Using A Digital Temperature Sensor To Measure The Temperature Development During A Polishing Process. In: Proceedings of the 2019 EOS Optical Technologies Conference.
- (2019): MSF-error prevention strategies for the grinding process. In: Proceedings of SPIE 11171 (Sixth European Seminar on Precision Optics Manufacturing, 1117101 [9-10 April 2019, Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2526581.
- (2019): Zero-point clamping systems in optical production. In: Proceedings of SPIE 11171 (Sixth European Seminar on Precision Optics Manufacturing, 1117101 [9-10 April 2019, Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2528774.
- (2019): Mid-spatial frequency errors in feed direction occurring in ADAPT polishing. In: Proceedings of SPIE 11171 (Sixth European Seminar on Precision Optics Manufacturing, 1117101 [9-10 April 2019, Teisnach]), Bellingham, WA, USA. DOI: 10.1117/12.2528114.
- (2018): Enlarging process window of ductile mode machining of WC molds. In: Proceedings of EOSAM 2018 (European Optical Society Biennial Meeting; October 2018; Delft, The Netherlands): Optical System Design, Tolerancing, and Fabrication.
- (2018): First experiences with Filled-Up-Microscopy (FUM) to evaluate the depth of sub-surface damages on ground surfaces. In: Proceedings of EOSAM 2018 (European Optical Society Biennial Meeting; October 2018; Delft, The Netherlands): Optical System Design, Tolerancing, and Fabrication.
- (2018): Standardized evaluation of grinding tools for brittle and ductile mode grinding. Invited Paper. In: Proceedings of EOSAM 2018 (European Optical Society Biennial Meeting; October 2018; Delft, The Netherlands): Optical System Design, Tolerancing, and Fabrication.
- (2018): Grinding and polishing of glass - Basis for a perfect coating. In: 12th International Conference on Coatings on Glass and Plastics (Joint session of DGG-Glasforum and the ICCG): The Glass Surface - The Basis for Innovative Coatings, Würzburg.
- (2018): Closed-loop laser polishing of glass. In: LaP 2018 - 3rd Conference on Laser Polishing, Aachen.
- (2018): In situ monitoring of laser polishing. In: DGaO-Proceedings 2018.
- (2018): Model based error separation of power spectral density artefacts in wavefront measurement. In: SPIE Optical Engineering + Applications Conference on Interferometry XIX, San Diego, CA, USA.
- (2018): Improved performance of CMP processes through targeted adjustment of polishing slurry and polish pad. In: SPIE Optical Engineering + Applications 2018, San Diego, CA, USA.
- (2018): Effizientes chemisch-mechanisches Polieren (CMP). In: Werkstattstechnik online-wt-online, no. 3, pp. 174-179.
- (2018): Improved performance of CMP processes through targeted adjustment of polishing slurry and polish pad. In: Proceedings of SPIE Optical Engineering + Applications (19-23 August, 2018; Optical Manufacturing and Testing XII; San Diego, CA, USA), San Diego, United States, vol. 10742. DOI: 10.1117/12.2321031.
- (2018): Load controlled process window analysis of feed controlled CNC grinding. In: PROCEEDINGS VOLUME 10692 SPIE OPTICAL SYSTEMS DESIGN, 14-17 MAY 2018 Optical Fabrication, Testing, and Metrology VI, Frankfurt, Germany. DOI: 10.1117/12.2315336.
- (2018): Ductile grinding of tungsten carbide applying standard CNC machines: a process analysis. In: Proceedings of SPIE 10692: SPIE Optical Systems Design/Optical Fabrication, Testing, and Metrology VI (14.-17.05.2018; Frankfurt /Main). DOI: 10.1117/12.2315338.



(2018): Filled-Up-Microscopy (FUM): a non-destructive method for approximating the depth of sub-surface damage on ground surfaces. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318576.

(2018): Ductile mode single point diamond turning (SPDT) of binderless tungsten carbide molds. In: Proceedings of SPIE Optical Engineering + Applications (19-23 August, 2018; Optical Manufacturing and Testing XII; San Diego, CA, USA), San Diego, United States, vol. 10742. DOI: 10.1117/12.2323244.

(2018): From turning to grinding: ductile machining with gPVA. In: Proceedings of SPIE Optical Engineering + Applications (19-23 August, 2018; Optical Manufacturing and Testing XII; San Diego, CA, USA), San Diego, United States, vol. 10742. DOI: 10.1117/12.2323246.

(2018): Ductile grinding of tungsten carbide molds applying standard CNC machines. In: Proceedings of SPIE Optical Engineering + Applications (19-23 August, 2018; Optical Manufacturing and Testing XII; San Diego, CA, USA), San Diego, United States, vol. 10742. DOI: 10.1117/12.2323245.

(2018): Closed-loop next generation laser polishing. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318749.

(2018): gPVA: a system for the classification of grinding tools. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318695.

(2018): In situ laser monitoring of laser polishing. In: 119. Jahrestagung der Deutschen Gesellschaft für angewandte Optik (DGaO), Technische Hochschule Aalen.

(2018): Model based error separation of power spectral density artefacts in wavefront measurement. In: Proceedings of SPIE 10749 (SPIE Optical Engineering + Applications Conference on Interferometry XIX [August 19-23, 2018; San Diego, CA, USA]). DOI: 10.1117/12.2321106.

(2018): DefGO. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318704.

(2018): On the metrology of the MSF errors. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318675.

(2018): Workpiece self-weight in precision optics manufacturing: compensation of workpiece deformations by a fluid bearing. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318577.

(2018): ABC-polishing. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2318549.

(2018): Simulation of MSF errors using Fourier transform. In: Proceedings of SPIE 10829 (Fifth European Seminar on Precision Optics Manufacturing [April 10-11, 2018; Teisnach]). DOI: 10.1117/12.2317484.

(2018): grinding Process Validation Approach (gPVA). Posterpräsentation. In: 5. Tag der Forschung, Deggendorf.

(2018): Workpiece self-weight induced deformation in precision optics manufacturing. Posterpräsentation. In: 5. Tag der Forschung, Deggendorf.

(2018): ArenA - Foi: Erprobung des ADAPT-Polierwerkzeugs. Posterpräsentation. In: 5. Tag der Forschung, Deggendorf.

(2018): EmmaV - Entstehungsmechanismen mittelfrequenter Fehler und deren aktive Vermeidung. Posterpräsentation. In: 5. Tag der Forschung, Deggendorf.

(2018): Closed-loop laser polishing using in-process surface finish metrology. In: Applied Optics, vol. 57, no. 4, pp. 834-838. DOI: 10.1364/AO.57.000834.



- (2017): Wear detection of brass bond diamond grinding wheel by spectral coherence of grinding forces. In: Proceedings of the 17th International Conference of the European Society for Precision Engineering and Nanotechnology [euspen] (May 29 - June 2, 2017; Hanover, Germany).
- (2017): Grinding Process Validation Approach (gPVA). In: Journal of Physical Science and Application, vol. 7, no. 5. DOI: 10.17265/2159-5348/2017.05.004.
- (2017): Cheap and fast measuring roughness on big surfaces with an imprint method. In: Proceedings of SPIE 10448 (SPIE Optifab [October 16-19, 2017; Rochester, NY, USA]).
- (2017): Setting-up high-end cnc grinding processes: a Preston-based approach. In: Proceedings of EOS Optical Technologies Conferences at the World of Photonics Congress (WPC 2017) [Munich, Germany; June 26-29, 2017].
- (2017): Three wagons Approach Applied to Optimization of Industrial Grinding Processes. In: Optical Fabrication and Testing part of Optical Design and Fabrication: 9-13 July 2017, Denver, Colorado, United States, Washington, D.C., USA. DOI: 10.1364/OFT.2017.OTu2B.2.
- (2017): In situ laser polishing optimization method: Control of LASer Surface Optimisation (C-Lasso). In: Proceedings of EOS Optical Technologies Conferences at the World of Photonics Congress (WPC 2017) [Munich, Germany; June 26-29, 2017].
- (2017): Parametrization of a Subaperture Polishing Tool - Analysis of the Path Tests. In: Optical Fabrication and Testing part of Optical Design and Fabrication: 9-13 July 2017, Denver, Colorado, United States, Washington, D.C., USA.
- (2017): Analysis of the influence of the workpiece self-weight in precision optics manufacturing using FEM simulation. In: Proceedings of SPIE 10326 (Fourth European Seminar on Precision Optics Manufacturing, 1032601 [April 4th-5th 2017, Teisnach]). DOI: 10.1117/12.2273023.
- (2017): Force-controlled analysis tool for optimization of precision CNC grinding processes. In: Proceedings of SPIE 10326 (Fourth European Seminar on Precision Optics Manufacturing, 1032601 [April 4th-5th 2017, Teisnach]). DOI: 10.1117/12.2272713.
- (2017): Advanced method for the characterization of polishing suspensions. In: Proceedings of SPIE 10326 (Fourth European Seminar on Precision Optics Manufacturing, 1032601 [April 4th-5th 2017, Teisnach]). DOI: 10.1117/12.2272431.
- (2017): Yet one more dwell time algorithm. In: Proceedings of SPIE 10326 (Fourth European Seminar on Precision Optics Manufacturing, 1032601 [April 4th-5th 2017, Teisnach]). DOI: 10.1117/12.2270540.
- (2017): Resolution, measurement errors and uncertainties on deflectometric acquisition of large optical surfaces "DaOS". In: Proceedings of SPIE 10326 (Fourth European Seminar on Precision Optics Manufacturing, 1032601 [April 4th-5th 2017, Teisnach]). DOI: 10.1117/12.2267513.
- (2017): Polishing tool and the resulting TIF for three variable machine parameters as input for the removal simulation. In: Proceedings of SPIE 10326 (Fourth European Seminar on Precision Optics Manufacturing, 1032601 [April 4th-5th 2017, Teisnach]). DOI: 10.1117/12.2267415.
- (2016): Hybridfertigung optischer Oberflächen. In: F.O.M.-Konferenz 2016 - Innovative Industrien unterstützen, Berlin.
- (2016): Deflectometric Acquisition of Large Optical Surfaces DaOS. Using a new physical measurement principle: vignetting field stop procedure. In: Optik&Photonik, vol. 11, no. 5, pp. 40-44. DOI: 10.1002/opph.201600036.
- (2016): Deflectometric Acquisition of Large Optical Surfaces " DaOS" Using a New Physical Measurement Principle: Vignetting Field Stop. (Reprinted from Proceedings of SPIE Volume 10009: Third European Seminar on Precision Optics Manufacturing, 100090Y [Teisnach, April 12th 2016] doi:10.1117/12.2236134). In: Bavarian Journal of Applied Sciences, no. 2, pp. 146-161.
- (2016): Reducing forces during drilling brittle hard materials by using ultrasonic and variation of coolant. In: Optics and Measurement International Conference 2016, Liberec, Tschechische Republik.



- (2016): Reducing forces during drilling brittle hard materials by using ultrasonic and variation of coolant. In: Proceedings of SPIE 10151. DOI: 10.1117/12.2257106.
- (2016): Prediction of grinding tool wear and lifetime by using a test bench. In: Proceedings of SPIE 10009 (Third European Seminar on Precision Optics Manufacturing, 100090Y [April 12th 2016, Teisnach]).
- (2016): Improving efficiency of chemo-mechanical polishing processes by systematic selection and conditioning of the polishing suspension. In: Proceedings of SPIE 10009 (Third European Seminar on Precision Optics Manufacturing, 100090Y [April 12th 2016, Teisnach]). DOI: 10.1117/12.2236000.
- (2016): Deflectometric acquisition of large optical surfaces (DaOS) using a new physical measurement principle: vignetting field stop procedure. In: Proceedings of SPIE 10009 (Third European Seminar on Precision Optics Manufacturing, 100090Y [April 12th 2016, Teisnach]). DOI: 10.1117/12.2236134.
- (2016): Interferometric measurement of highly accurate flat surfaces. In: Proceedings of SPIE 10009 (Third European Seminar on Precision Optics Manufacturing, 100090Y [April 12th 2016, Teisnach]). DOI: 10.1117/12.2235525.
- (2016): An investigation on the efficiency of the manufacturing of components in precision optics. In: Proceedings of SPIE 10009 (Third European Seminar on Precision Optics Manufacturing, 100090Y [April 12th 2016, Teisnach]). DOI: 10.1117/12.2236137.
- (2016): Innovationsentwicklung mit der Technischen Hochschule Deggendorf. In: Innovationsworkshop "Innovation in der Photonik" im Rahmen der 13. Optatec 2016 - Internationale Fachmesse für optische Technologien, Komponenten und Systeme, Frankfurt am Main.
- (2016): Aspects in laser polishing of precision optical components. In: LaP 2016 - 2nd Conference on Laser Polishing, Aachen.
- (2015): Dependency between removal characteristics and defined measurement categories of pellets. In: Proceedings of SPIE 9573. DOI: 10.1117/12.2189987.
- (2015): Stabilität im Polierprozess. In: Newsletter Bayern Photonics (Innovationsnetzwerk Optische Technologien), no. Oktober.
- (2015): Surface errors in the course of machining precision optics. In: Proceedings of SPIE Volume 9575, Optical Manufacturing and Testing XI (Aug 27th 2016, San Diego, CA). DOI: 10.1117/12.2189991.
- (2015): The vignetting field stop procedure: A new physical measurement principle for the Deflectometric acquisition of big Optical Surfaces - DaOS. In: DGaO Proceedings (116. Jahrestagung in Brno, Tschechische Republik, 25.-29.05.2015).
- (2015): Surface roughness testing below 0.5 nm Sq. Measuring of Sub-Nanometer Surface Texture by White-Light Interferometry. In: 6. Fachtagung Produktionsmesstechnik für die Praxis, Buchs, Schweiz.
- (2015): Quantification of synthetic lens surface characteristics by an optical measurement system as stylus instrument. In: Proceedings of SPIE 9442.
- (2014): A Study on Elastic Grinding Tools. In: Proceedings of the International Optical Design Conference, Washington, DC. DOI: 10.1364/OFT.2014.OTu3B.3.
- (2014): Process development for the reproducible roughness measurement of optical surfaces using white light interferometry. In: International Journal of Metrology and Quality Engineering (EDP Sciences), vol. 5, no. 1, pp. 29-35.
- (2014): Generation and field testing of roughness reference samples for industrial testing of surface roughness levels below 0.5nm Sq. In: Proceedings of EOSAM 2014 (European Optical Society Annual Meeting) [Sep 15-19 2014, Berlin, Germany].
- (2014): Quantification of synthetic lens surface characteristics by an optical measurement system as stylus instrument. In: Optics and Measurement International Conference 2014, Liberec, Tschechische Republik.



- (2014): Aims for the development of new optical glass materials. In: 1st European Seminar on Precision Optics Manufacturing, Teisnach.
- (2014): 3D-optical measurement system using vignetting aperture procedure. In: Proceedings of SPIE Vol. 9132. DOI: 10.1117/12.2052631.
- (2014): A study on elastic grinding tools. In: Optical Fabrication and Testing (OF&T), Kohala Coast, HI, USA.
- (2014): Technologies and results for the mirror production in Teisnach. In: 1st European Seminar on Precision Optics Manufacturing, Teisnach.
- (2014): Active Fluid Jet Polishing - Behaviour on Different Materials. In: Optical Fabrication and Testing (OF&T), Kohala Coast, HI, USA.
- (2014): Automatische Kratzererkennung an hochpräzisen Drehteilen. „Projekt KonoScan“. In: SENSOR + TEST, Nürnberg.
- (2013): Grinding Processes for Silicon Carbide (CSiC) Materials. In: Proceedings of the 13th International Conference of the European Society for Precision Engineering & Nanotechnology , Berlin.
- (2013): Flexiplant: schmelzebasierte kontinuierliche Herstellung von low TG-Glas-Preformen (mittels Minimeltertechnologie). In: 87. Glastechnische Tagung, Bremen.
- (2013): Moderne Optikfertigung. In: 6. Optikseminar - Agenda zur modernen Optikfertigung, Teisnach.
- (2013): Fertigung präziser Optikflächen – schleifen und polieren oder pressen?. In: DGG-Glasforum, Wertheim-Bronnbach.
- (2013): Subaperture-polishing with variable spots. In: Renewable Energy and the Environment, Freeform Optics (Freeform), Tucson, AZ, USA.
- (2013): Approach to the measurement of astronomical mirrors with new procedures. In: Optical Metrology 2013, Optical Measurement Systems for Industrial Inspection VIII, volume 8788.
- (2013): Determination of a suitable parameter field for the active fluid jet polishing process. In: Optifab 2013, vol. Volume 8884. DOI: 10.1117/12.2028752.
- (2013): Calculation of the reference surface error by analyzing a multiple set of sub-measurements. In: SPIE Optics + Photonics 2013, Optical Manufacturing and Testing X, volume 8838. DOI: 10.1117/12.2024003.
- (2013): Rauigkeitsmessungen an großen und schwer zugänglichen Bauteilen. In: MM Industriemagazin-Maschinenmarkt, no. 47, pp. 40-41.
- (2012): Laserdiffraktometrie - Korngrößenverteilung in Poliermitteln. Posterbeitrag. In: 5. Optikseminar, Teisnach.
- (2012): Poliermittelerprobung II. In: Spectaris - 6. Treffen des Industriekonsortiums Seltene Erden, Mainz.
- (2012): Laserdiffraktometrie zur Charakterisierung von Korngrößen und deren Verteilung in Poliermitteln. In: 5. Optikseminar, Teisnach.
- (2012): Precision Glass Molding of lenses by using the nanotech molding process - a practical summary. Joint Poster Session (JTU5A). In: Proceedings of Applied Industrial Optics: Spectroscopy, Imaging and Metrology; Monterey, CA, USA; 24.-28.06.2012.
- (2012): GF-Projekt Optasens - Combination and evaluation of different optical and tactile sensor and measuring methods for analysis and global form-measurement on optical surfaces. Posterpräsentation. In: F.O.M.-Marktplatz der Forschungsprojekte, Berlin.
- (2012): Hochgenaue Optische Abstandssensoren in Messtechnik und Qualitätssicherung. In: 1. Optence Messtechnik Symposium, Darmstadt.



- (2012): Metrology at Technologie Campus Teisnach. In: 8th Workshop Asphere Metrology, Braunschweig.
- (2011): An Experimental Study on a Flexible Grinding Tool. In: Advanced Materials Research, vol. 325, pp. 91-96. DOI: 10.4028/www.scientific.net/AMR.325.91.
- (2011): Poliermittelerprobung I. In: Spectaris - 4. Treffen des Industriekonsortiums Seltene Erden, Teisnach.
- (2011): Use of ELID-grinding on brittle-hard materials. In: International Journal of Mechatronics and Manufacturing Systems, vol. 4, no. 6, pp. 553-568. DOI: 10.1504/IJMMS.2011.044105.
- (2011): Physical marker based stitching process of circular and non-circular interferograms. In: Proc. SPIE 8083, Modeling Aspects in Optical Metrology III (SPIE Optical Metrology; May 2012; Munich, Germany). DOI: 10.1117/12.889491.
- (2010): Ultraschalluntersütztes Bearbeiten optischer Materialien. In: 4. Optikseminar, Teisnach.
- (2010): Investigations on Grinding Tools for Silicon Carbide Based Advanced Materials. In: International Optical Design Conference 2010 (13-17 June 2010, Jackson Hole, WY, USA), Bellingham, vol. Vol. 7652.
- (2010): Investigations on Magnetorheological Finishing of High-Quality Optical Surfaces with Varying Influence Function (Proceedings of Optical Fabrication and Testing 2010; Jackson Hole, WY, USA; June 13-17, 2010). In: Optical Fabrication and Testing on CD-ROM, Washington, DC, USA. DOI: 10.1364/OFT.2010.OWD3.
- (2010): Relationship between influence function accuracy and polishing quality in magnetorheological finishing. In: Proceedings of the 5th International Symposium on Advanced Optical Manufacturing and Testing Technologies: Advanced Optical Manufacturing Technologies (Dalian, China; April 26-29, 2010), vol. 7655. DOI: 10.1117/12.865508.
- (2010): Effects of mechanical inaccuracies on the measurement result in metrology systems. In: Proceedings of the 5th International Symposium on Advanced Optical Manufacturing and Testing Technologies: Optical Test and Measurement Technology and Equipment, vol. 7656.
- (2010): ELID supported grinding of thin sapphire wafers. In: Proceedings of SPIE: 5th International Symposium on Advanced Optical Manufacturing and Testing Technologies: Advanced Optical Manufacturing Technologies, Volume 7655.
- (2010): Effects of mechanical inaccuracies on the measurement result in metrology systems. In: SPIE Conference, Dalian, China.
- (2010): Erfahrungen zum ELID-Schleifen hochfester, spröder Werkstoffe. In: 8. Seminar Moderne Schleiftechnologie und Feinstbearbeitung, Furtwangen.
- (2010): ELID supported grinding of thin Sapphire wafers. In: 5th SPIE International Symposium on Advanced Optical Manufacturing and Testing Technologies, Dalian, China.
- (2010): Relationship between influence function accuracy and polishing quality in magnetorheological finishing. In: 5th SPIE International Symposium on Advanced Optical Manufacturing and Testing Technologies, Dalian, China.
- (2010): Effects of mechanical inaccuracies on the Measurement result in metrology systems. In: 5th SPIE International Symposium on Advanced Optical Manufacturing and Testing Technologies, Dalian, China.
- (2010): Vor- und Nachteile der Ultraschalltechnologie beim Schleifen von optischen Flächen. In: Achstes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt.
- (2010): Vor- und Nachteile der Ultraschalltechnologie beim Schleifen von optischen Flächen. In: Achstes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, Zwiesel.
- (2010): Forschung für die Industrie im Technologiecampus Teisnach, Hochschule für Angewandte Wissenschaften – FH Deggendorf. In: Achstes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, Zwiesel.
- (2009): Strategies for grinding optical free-forms using ball-shaped grinding wheels. In: SPIE Optifab, Rochester, NY, USA.



- (2009): Vortrag ELSA Grind ELID supported grinding of thin micro-structured sapphire wafers. In: 2. Internationale Konferenz zum Ultrapräzisions- und, Aachen.
- (2009): Strategies for grinding optical free forms using ball shaped grinding wheels. In: Optifab 2009: Conference TD06, Rochester, NY, USA.
- (2009): Second Design Der große Wurf. In: AUTOMOBIL PRODUKTION, no. 2.
- (2009): 2nd Design Kosten senken in der 2. Runde. In: Fachsymposium Faszination Kleben, Neuss.
- (2009): Ultrasonic assisted drilling of brittle hard materials. In: Proceedings of the 9th euspen International Conference, Volume 1, San Sebastian, Spanien, 02.-05.06.2009.
- (2008): Ultraschallunterstütztes Schleifen von Linsen. In: Siebtes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, Zwiesel.
- (2008): Precision finishing of aspherical optical components using ELID grinding. In: Siebtes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, Zwiesel.
- (2008): Ultraschallunterstütztes Schleifen von Linsen. In: Siebtes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt.
- (2008): Precision finishing of aspherical optical components using ELID grinding. In: Siebtes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt.
- (2008): Advanced techniques for computer-controlled polishing. In: Current Developments in Lens Design and Optical Engineering IX, vol. 7060, no. 70600Q ff.. DOI: 10.1117/12.808036.
- (2008): Forces acting between polishing tool and workpiece surface in magnetorheological finishing. In: Proceedings of SPIE, Volume 7060, Current Developments in Lens Design and Optical Engineering IX (Optical Engineering + Applications, San Diego, CA, USA; August 10-14, 2008). DOI: 10.1117/12.794196.
- (2008): Material removal study at silicon nitride molds for the precision glass molding using MRF process. In: Current Developments in Lens Design and Optical Engineering IX, vol. 7060, no. August. DOI: 10.1117/12.794583.
- (2008): Advanced technologies in precision optics manufacturing - a view to 2015?.
- (2008): Blick in die Zukunft - Eine Agenda zur Optikfertigung 2015?. In: BayTech Optik Seminar, Deggendorf.
- (2008): Material influence of silicon nitride at Magnetorheological Finishing (MRF). In: Proceedings of the 12th International Research/Expert Conference "Trends in the Development of Machinery and Associated Technology" TMT 2008, Istanbul, Türkei, 26.-30.08.2008.
- (2008): Examination of surface and subsurface damages on silicon wafers using dimple polishing. In: Proceedings of the 13th International Conference on Problems of Material Engineering, Mechanics and Design, Rajeke, Slowakei, 26.-29.08.2008.
- (2008): Magnetorheological Finishing of silicon nitride moulds. In: Proceedings of the 10th Anniversary International Conference of the European Society of Precision Engineering and Nanotechnology, Zürich, Schweiz, Volume 2.
- (2008): Utilisation of time-variant influence functions in the computer-controlled polishing. In: Precision Engineering, vol. 32, no. 1, pp. 47-54. DOI: 10.1016/j.precisioneng.2007.04.005.
- (2008): Simulation of a complex optical polishing process using a neural network. In: Robotics and Computer-Integrated Manufacturing, vol. 24, no. 1, pp. 32-37. DOI: 10.1016/j.rcim.2006.07.003.
- (2008): Mathematical modelling of influence functions in computer-controlled polishing. Part II. In: Applied Mathematical Modelling, vol. 32, no. 12, pp. 2907-2924.
- (2008): Mathematical modelling of influence functions in computer-controlled polishing. Part I. In: Applied Mathematical Modelling, vol. 32, no. 12, pp. 2888-2906.

- (2007): Ultraschallbearbeitung von Glas. In: 5. Technologietreff.
- (2007): Calculation of MRF influence functions. In: Optical Manufacturing and Testing VII, SPIE, San Diego, CA, USA.
- (2007): Calculation of MRF influence functions. In: Optical Manufacturing and Testing VII, vol. 6671.
- (2007): Subsurface damages detecting on standard optical glass by dimple method. In: The 12th International Conference on Problems of Material Engineering, Mechanics and Design, Jasna, Slowakei.
- (2007): Lens production enhancement by adoption of artificial influence functions and a knowledge-based system in a magnetorheological finishing process. In: Optical Manufacturing and Testing VII, vol. 6671, no. September. DOI: 10.1117/12.761356.
- (2007): Design and development of a novel computer-controlled power device for electrical-assisted optical grinding. In: Optifab 2007: Technical Digest, volume TD04.
- (2007): Subsurface damages detecting on standard optical glass by dimple method. In: Proceedings of the 12th International Conference on Problems of Material Engineering, Mechanics and Design, Jasna, Slowakei.
- (2007): Correcting silicon carbide and silicon nitride moulds by Magnetorheological Finishing. In: Proceedings of the 7th euspenn International Conference, Bremen, Vol. 2.
- (2007): Filter algorithm for influence functions in the computer-controlled polishing of high-quality optical lenses. In: International Journal of Machine Tools and Manufacture, vol. 47, no. 1, pp. 107-111.
- (2006): Aktuelle Ergebnisse aus dem Labor Optical Engineering der FH Deggendorf zu den Arbeiten auf den Gebieten Ultraschallunterstütztes Schleifen und ELID-Schleifen. In: BayTech Optik Seminar, Deggendorf.
- (2006): Coherences between influence function size, polishing quality and process time in the magnetorheological finishing. In: Current Developments in Lens Design and Optical Engineering VII, San Diego, CA, USA.
- (2006): Sedimentations on high-precision surfaces of advanced materials by magnetorheological finishing. In: Current Developments in Lens Design and Optical Engineering VII, San Diego, CA, USA.
- (2006): Rauigkeitsentwicklung bei der Bearbeitung von Komponenten für die Präzisionsoptik mit Diamantwerkzeugen. In: Sechstes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, OTTI, Zwiesel.
- (2006): Deposits and damages on high precision surfaces of advanced materials. In: 5th Youth Symposium on Experimental Solid Mechanics, Puchov, Slowakei.
- (2006): Simulation of a complex optical polishing process using a neural network. In: Robotics and Computer-Integrated Manufacturing, vol. 24, no. 1, pp. 32-37. DOI: 10.1016/j.rcim.2006.07.003.
- (2006): Coherences between influence function size, polishing quality and process time in the magnetorheological finishing. In: Current Developments in Lens Design and Optical Engineering VII, vol. 6288. DOI: 10.1117/12.678720.
- (2006): Sedimentations on high-precision surfaces of advanced materials by magnetorheological finishing. In: Current Developments in Lens Design and Optical Engineering VII, vol. 6288.
- (2006): Rauigkeitsentwicklung bei der Bearbeitung von Komponenten für die Präzisionsoptik mit Diamantwerkzeugen. In: Sechstes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, OTTI, Zwiesel.
- (2006): Deposits and damages on high precision surfaces of advanced materials. In: Proceedings of the 5th Youth Symposium on Experimental Solid Mechanics, Puchov, Slowakei.
- (2006): Correlation between influence- function quality and predictability of a computer-controlled polishing process. In: Optical Engineering, vol. 45, no. 6. DOI: 10.1117/1.2213630.
- (2005): Labor Optical Engineering – Moderne Fertigungstechnik im Fokus. In: BayTech Optik Seminar, Deggendorf.
- (2005): Comparison of different magnetorheological polishing fluids.



- (2005): New viscosity measurement for magnetorheological polishing fluid. In: Optical Manufacturing and Testing VI, San Diego, CA, USA.
- (2005): Utilizing a TII aspherical measurement machine in a computer-controlled polishing process. In: Optical Measurement Systems for Industrial Inspection IV, München.
- (2005): A new approach to predict computer-controlled polishing results. In: Optical Manufacturing and Testing VI, San Diego, CA, USA.
- (2005): Analysis of thermal sources in a magnetorheological finishing (MRF) process. In: Optical Manufacturing and Testing VI, San Diego, CA, USA.
- (2005): Comparison of different magnetorheological polishing fluids. In: Optical Fabrication, Testing, and Metrology II, vol. 5965, pp. 659-670. DOI: 10.1117/12.656430.
- (2005): New viscosity measurement for magnetorheological polishing fluid. In: Optical Manufacturing and Testing VI, vol. 5869, pp. 133-141. DOI: 10.1117/12.616690.
- (2005): Analysis of thermal sources in a magnetorheological finishing (MRF) process. In: Optical Manufacturing and Testing VI, vol. 5869, pp. 111-120. DOI: 10.1117/12.616751.
- (2005): A new approach to predict computer-controlled polishing results. In: Optical Manufacturing and Testing VI, vol. 5869, pp. 94-102. DOI: 10.1117/12.616780.
- (2005): Utilizing a TII aspherical measurement machine in a computer-controlled polishing process. In: Optical Measurement Systems for Industrial Inspection IV, vol. 5856, pp. 987-993. DOI: 10.1117/12.612597.
- (2005): MRF in der Praxis – Optimierung der Wirtschaftlichkeit. In: BayTech Optik Seminar, Deggendorf.
- (2004): Temporal stability and performance of MR polishing fluid. In: Current Developments in Lens Design and Optical Engineering V, San Diego, CA, USA.
- (2004): Erzeugung hochpräziser Oberflächen auf optischen Bauelementen für die Präzisionsoptik mit magnetorheologischem Finishing (MRF). In: Fünftes Symposium - Zukunft Glas - Von der Tradition zum High-Tech-Produkt, Zwiesel.
- (2004): Comparison of a new contact topographical measurement system for spherical and aspherical surfaces with interferometry. In: Current Developments in Lens Design and Optical Engineering V, Denver, CO, USA.
- (2004): Temporal stability and performance of MR polishing fluid. In: Current Developments in Lens Design and Optical Engineering V, vol. 5523, pp. 273-280. DOI: 10.1117/12.558897.
- (2004): Comparison of a new contact topographical measurement system for spherical and aspherical surfaces with interferometry. In: Current Developments in Lens Design and Optical Engineering V, vol. 5523, pp. 225-234. DOI: 10.1117/12.558899.
- (2004): Erzeugung hochpräziser Oberflächen auf optischen Bauelementen für die Präzisionsoptik mit magnetorheologischem Finishing (MRF). In: Fünftes Symposium - Zukunft Glas - von der Tradition zum High-Tech-Produkt, page 8998. OTTI.
- (2003): Prediction of MRF polishing by classification of the initial error with Zernike polynomials. In: Optical Manufacturing and Testing V, San Diego, CA, USA.
- (2003): Lens production enhancement by adoption of artificial influence functions and a knowledge-based system in a magnetorheological finishing process. In: Optical Manufacturing and Testing VII, San Diego, CA, USA.
- (2003): Prediction of MRF polishing by classification of the initial error with Zernike polynomials. In: Optical Manufacturing and Testing V, vol. 5180, pp. 115-122. DOI: 10.1117/12.507652.
- (2002): SG-Sensor – an affordable tactile alternative.



(2002): IFHEM – Innovatives Fertigungskonzept für High Tech-Flächen durch Einsatz von MRF-Technologie. In: Bericht über angewandte Forschung und Entwicklung sowie wissenschaftlichen Technologietransfer der Fachhochschule Deggendorf, 2000-2002.

(1991): Experimentelle Untersuchungen zur Technologie der Kugelherstellung. In: wt (Werkstattstechnik) Produktion und Management, vol. 81, no. 11, pp. 663-664.

(1991): Entwicklungstendenzen beim Schleifen von Kugeln. In: MM Industriemagazin-Maschinenmarkt, vol. 97, no. 33, pp. 34-38.

(1989): Experimentelle Untersuchungen zur Technologie der Kugelherstellung. In: iwv Forschungsberichte, Berlin, Heidelberg. ISBN: 978-3-642-74843-1.

(1988): IMTS '88 in Chicago. In: maschine + werkzeug - Fertigungstechnik, no. 23, pp. 88-97.

(1988): Practical analysis of the process of producing balls for ball bearings.

(1987): Integration im Verborgenen – Die 7. EMO in Mailand. In: Moderne Fertigung, no. 11, pp. 90-98.

(1986): Technologie metallischer und keramischer Verbundwerkstoffe. In: Sonderschau „Neue Werkstoffe“ auf der METAV 86.

(1985): Schleifmaschinen auf der 6. EMO in Hannover. In: maschine + werkzeug - Fertigungstechnik, no. 24, pp. 48-54.

: Vorrichtungssystem für eine beidseitige hochgenaue Bearbeitung von Linsen. In: 1. Ko-op Symposium, Garching.

: Steigerung von Fertigungsgenauigkeit und -geschwindigkeit bei der Herstellung von Präzisionslinsen. In: 2. Ko-op Symposium, Garching.

: Untersuchungen zu einer durchgängigen Werkstückaufnahme für die Herstellung von Hochpräzisionsoptiken. In: 3. Ko-op Symposium, Garching.

: Steigerung der Effizienz chemisch-mechanischer Polierprozesse durch eine systematische Auswahl und Anpassung von Poliersuspension und Poliermittelträger. In: 3. Ko-op Symposium, Garching.

: Steigerung der Effizienz chemisch-mechanischer Polierprozesse durch eine systematische Auswahl und Anpassung von Poliersuspension und Poliermittelträger. In: 2. Ko-op Symposium, Garching.

: Steigerung der Effizienz chemisch-mechanischer Polierprozesse durch Anpassung der Poliersuspension. In: 1. Ko-op Symposium, Garching.

: Hybrid Process Chain for Polishing of Optics Made from Glass. In: LaP 2020 - 4th Conference on Laser Polishing, Aachen (video conference).

