

Martin Schagerl's List of Publications

Status November 4, 2021. Articles highlighted with ☆ are listed as selected publications at my personal homepage www.jku.at/ikl/.../schagerl.html

Book

- ☆ W. Steiner and M. Schagerl,
Raumflugmechanik: Dynamik und Steuerung von Raumfahrzeugen.
297 pages, 116 figures, hardcover, ISBN 3-540-20761-9, Springer Heidelberg, 2004.



Journal Papers

- M. Winklberger, C. Kralovec and M. Schagerl,
Development of Aircraft Spoiler Demonstrators for Cost-Efficient Investigations of SHM Technologies under Quasi-Realistic Loading Conditions.
Aerospace, 19 pages, 8(11):320, DOI 10.3390/aerospace8110320, 2021.
- L. Heinzlmeier, S. Sieberer, C. Kralovec and M. Schagerl,
Implications of free-edge effect at thin plain-woven carbon fiber reinforced plastic laminates with out-of-plane waviness under cyclic loading.
Journal of Composite Materials, 55(27):4097-4108, DOI 10.1177/00219983211041753, 2021.
- S. Sindinger, D. Marschall, H. Rippl, M. Bartosova and M. Schagerl,
Design, simulation, testing and application of laser-sintered conformal lattice structures on component level.
Rapid Prototyping Journal, 27(11):43-57, DOI 10.1108/RPJ-10-2020-0232, 2021.
- S. Sindinger, D. Marschall, C. Kralovec and M. Schagerl,
Structural Response Prediction of Thin-Walled Additively Manufactured Parts considering Orthotropy, Thickness Dependency and Scatter.
Materials, 23 pages, 14(9):2463, DOI 10.3390/ma14092463, 2021.
- T. Bergmayr, M. Winklberger, C. Kralovec and M. Schagerl,
Structural health monitoring of aerospace sandwich structures via strain measurements along zero-strain trajectories.
Engineering Failure Analysis, 10 pages, 126, DOI 10.1016/j.engfailanal.2021.105454, 2021.
- T. Bergmayr, C. Kralovec and M. Schagerl,
Vibration-Based Thermal Health Monitoring for Face Layer Debonding Detection in Aerospace Sandwich Structures.
Applied Sciences, 15 pages, 11(1):211, DOI 10.3390/app110102112021, 2021.

- M. Winklberger, C. Kralovec, C. Humer, P. Heftberger M. Schagerl,
Crack identification in necked double shear lugs by means of the electro-mechanical impedance method.
Sensors, 20 pages, 21(1):44, DOI 10.3390/s21010044, 2021.
- M. Grillenberger and M. Schagerl,
Enhanced characterization of the yield behavior of sheet metal at torsional load using digital image correlation methods.
Continuum Mechanics and Thermodynamics, 33:475-483, DOI 10.1007/s00161-020-00920-1, 2021.
- S.-L. Sindinger, D. Marschall, C. Kralovec and M. Schagerl,
Material modelling and property mapping for structural FEA of thin-walled additively manufactured components.
Virtual and Physical Prototyping, 16(1):97-112, DOI 10.1080/17452759.2020.1824427, 2021.
- M. Haingartner, S. Gschoßmann, M. Cichocki and M. Schagerl,
Improved current injection pattern for the detection of delaminations in carbon fiber reinforced polymer plates using electrical impedance tomography.
Structural Health Monitoring, 11 pages, DOI 10.1177/1475921720972308, 2020.
- J. Wagner, S. Gschoßmann and M. Schagerl,
On the capability of measuring actual strain values with Electrical Impedance Tomography using planar silkscreen printed elastoresistive sensors.
IEEE Sensors Journal, 11 pages, DOI 10.1109/JSEN.2020.3036736, 2020.
- D. Marschall, H. Rippl, F. Ehrhart and M. Schagerl,
Boundary conformal design of laser sintered sandwich cores and simulation of graded lattice cells using a forward homogenization approach.
Materials and Design, 11 pages, 190:108539, 2020.
- M. Winklberger and M. Schagerl,
On the fatigue and fracture behavior of necked double shear lugs for aircraft applications.
Materials Science and Engineering Technology (Materialwissenschaft und Werkstofftechnik), 51(3):284-296, 2020.
- S.-L. Sindinger, C. Kralovec, D. Tasch and M. Schagerl,
Thickness dependent anisotropy of mechanical properties and inhomogeneous porosity characteristics in laser-sintered polyamide 12.
Additive Manufacturing, 11 pages, 33:101141, 2020.
- ☆ C. Kralovec and M. Schagerl,
Review of structural health monitoring methods regarding a multi-sensor approach for damage assessment of metal and composite structures.
Sensors, 25 pages, 20(3):826, 2020.
- S. Sieberer, S. Nonn and M. Schagerl,
Fatigue behaviour of discontinuous carbon-fibre reinforced specimens and structural parts.
International Journal of Fatigue, 12 pages, 131:105289, 2020.
- D. Tasch, M. Schagerl, B. Wazel and G. Wallner,
Impact behavior and fractography of additively manufactured polymers: Laser sintering, multijet fusion, and hot lithography.
Additive Manufacturing, 29:100816, 2019.
- M. Hanisch and M. Schagerl,
Strength Analysis of Additively Manufactured Titanium Load Introduction Elements.
Lightweight Design worldwide, (2):42-48, 2019.

- Y. Zhao, M. Schagerl, S. Gschoßmann and C. Kralovec,
In-situ spatial strain monitoring of a single-lap joint using inkjet-printed carbon nanotube embedded thin films.
Structural Health Monitoring 18(5-6):1479-1490, 2019.
- M. Meindlhumer, K. Horejsi and M. Schagerl,
Manufacturing and costs of current sandwich and future monolithic designs of spoilers.
Journal of Aircraft, 56(1):85-93, 2018.
- S. Nonn, M. Schagerl and C. Kralovec,
Damage mechanisms under static and fatigue loading at locally compacted regions in a high pressure resin transfer molded carbon fiber non-crimp fabric.
Composites Part A: Applied Science and Manufacturing, 115:57-65, 2018.
- Y. Zhao, S. Gschoßmann, M. Schagerl, P. Grüner and C. Kralovec,
Characterization of the spatial elastoresistivity of inkjet-printed carbon nanotube thin films.
Smart Materials and Structures, 27(10):105009 (13pp), 2018.
- D. Tasch, A. Mad, R. Stadlbauer and M. Schagerl,
Thickness dependency of mechanical properties of laser-sintered polyamide lightweight structures.
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- A. Preisler, K.-U. Schröder and M. Schagerl,
Intrinsic damage assessment of beam structures based on structural damage indicators.
American Journal of Engineering Research, 7(6):56-70, 2018.
- ☆ S. Nonn, M. Schagerl, Y. Zhao, S. Gschoßmann and C. Kralovec,
Application of electrical impedance tomography to an anisotropic carbon fibre-reinforced polymer composite laminate for damage localization.
Composites Science and Technology, 160:231-236, 2018.
- L. Hingshammer, M. Grillenberger, M. Schagerl, M. Malek and S. Hunger,
Biomechanical testing of zirconium dioxide osteosynthesis system for Le Fort I advancement osteotomy fixation.
Journal of the Mechanical Behavior of Biomedical Materials, 77:34-39, 2018.
- Y. Zhao, M. Schagerl, C. Viechtbauer and K. Loh,
Characterizing the Conductivity and Enhancing the Piezoresistivity of Carbon Nanotube-Polymeric Thin Films.
Materials, 10(7):724-734, 2017.
- C. Kralovec and M. Schagerl,
Electro-mechanical impedance measurements as a possible SHM method for sandwich debonding detection.
Key Engineering Materials, 742:763-777, 2017.
- ☆ S. Hörrmann, A. Adumitroaie, C. Viechtbauer and M. Schagerl,
The effect of fiber waviness on the fatigue life of CFRP materials.
International Journal of Fatigue, 90:139-147, 2016.
- S. Hörrmann, A. Adumitroaie and M. Schagerl,
The effect of ply folds as manufacturing defect on the fatigue life of CFRP materials.
Frattura ed Integrità Strutturale, 38:76-81, 2016.
- L. Retschitzegger, A. Adumitroaie, S. Hörrmann and M. Schagerl,
Using X-FEM for Progressive Damage Simulation of Laminated Composites Featuring Manufacturing Imperfections.
Key Engineering Materials, 713:139-142, 2016.

- A. Adumitroaie, E. J. Barbero and M. Schagerl,
Matrix Cracking in Non-Symmetric Laminates under Combined Membrane and Flexural Loading.
International Journal of Materials, Mechanics and Manufacturing, 4(4):223-231, 2015.
- C. Kralovec, M. Schagerl and K.-U. Schröder,
Elastic body impact on sandwich panels at low and intermediate velocity.
Proc. IMechE, Part G: Journal of Aerospace Engineering, 229(2):221-231, 2014.
- C. Viechtbauer, K.-U. Schröder and M. Schagerl,
Smart Structural Health Monitoring validated on simple plate under compressive loading.
Key Engineering Materials, 569:1052-1059, 2013.
- B. Müller, K.-U. Schröder and M. Schagerl,
Prediction of the collapse mode of axially crushed profiles.
Proceedings of the ICE: Structures and Buildings, 166(8):456-464, 2013.
- M. Schagerl,
Analytical formulas for the effective width caused by bulging and flattening of curved aircraft panels.
Proc. IMechE, Part C: Journal of Mechanical Engineering Science, 225:2399-2412, 2011.
- ☆ C. Mittelstedt and M. Schagerl,
A composite view on Windenburg's problem: Buckling and minimum stiffness requirements of compressively loaded orthotropic plates with edge reinforcements.
International Journal of Mechanical Sciences, 52:471-484, 2010.
- P. Bürmann, R. Rolfes, J. Tessmer and M. Schagerl,
A semi-analytical model for local postbuckling analysis of stringer- and frame-stiffened panels.
Journal of Thin-Walled Structures, 44(1):102-114, 2006.
- ☆ M. Krupa, W. Poth, M. Schagerl, A. Steindl, W. Steiner, H. Troger and G. Wiedermann,
Modelling, Dynamics and Control of Tethered Satellite Systems.
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- ☆ S. S. Antman and M. Schagerl,
Slumping instabilities of elastic membranes holding liquids and gases.
International Journal of Non-Linear Mechanics, 40:1112-1138, 2005.
- ☆ M. Schagerl and A. Berger,
Propagation of small waves in inextensible strings.
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- M. Krupa, M. Schagerl, A. Steindl, P. Szmolyan and H. Troger,
Relative equilibria of tethered satellite systems and their stability for very stiff tethers.
Dynamical Systems, 16(No. 3):253-278, 2001.
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European Journal of Mechanics A/Solids 19:S149-S164, 2000.
- M. Krupa, M. Schagerl, A. Steindl and H. Troger,
Stability of Relative Equilibria. Part I: Comparison of Four Methods.
Meccanica, 35:325-351, 2000.
- ☆ M. Schagerl, W. Steiner, A. Steindl and H. Troger,
On the paradox of the free falling folded chain.
Acta Mechanica, 125:155-168, 1997.

Conference Articles

- M. Winklberger, C. Kralovec, P. Heftberger and M. Schagerl,
Crack size monitoring in necked double shear lugs using the electro-mechanical impedance method.
P. Fromme and Z. Su (Eds.), Health Monitoring of Structural and Biological Systems XV, 11593, Society of Photo-Optical Instrumentation Engineers (SPIE), 2021.
- T. Bergmayr, M. Winklberger, C. Kralovec and M. Schagerl,
Strain measurements along zero-strain trajectories as possible structural health monitoring method for debonding initiation and propagation in aircraft sandwich structures.
Procedia Structural Integrity, 28:1473-1480, 2020.
- L. Grasböck, M. Nader, A. Humer, M. Schagerl, M. Misol, H. P. Monner, S. Herold, D. Mayer,
A summary of piezoelectric energy harvesting for autonomous smart structures.
I. Horváth and G. Keenaghan (Eds.), Proceedings of the 13th International Tools and Methods of Competitive Engineering Symposium (TMCE 2020), 595-606, Springer, 2020.
- S. Sieberer, S. Nonn and M. Schagerl,
Experimental Study on the Stiffness Evolution and Residual Strength of a Pre-damaged Structural Component Made from SMC CFRP Material.
Proceedings of the 13th International Conference on Damage Assessment of Structures (DAMAS 2019), Lecture Notes in Mechanical Engineering, 827-836, Springer, 2020.
- C. Humer, C. Kralovec and M. Schagerl,
Application of the scattering analysis method for guided waves measured by laser scanning vibrometry.
F.-K. Chang and F. Kopsaftopoulos (Eds.), Structural Health Monitoring – Enabling Intelligent Life-cycle Health Management for Industry Internet of Things (IIOT), DEStech Publications, DOI 10.12783/shm2019/32321, 2019.
- L. Wagner, T. Gross, P. Gruber, M. Grillenberger and M. Schagerl
Application of the in-plane torsion test in an industrial environment – recent advances and remaining challenges.
Proceedings of the 12th Forming Technology Forum, private publishing by utg TU Munich, 7 pages, 2019
- D. Kimpfbeck, S. Gschoßmann, J. Wagner and M. Schagerl,
Optimizing the electrical conductivity of CNT embedded thin films printed with industrial inkjet technology for strain sensing applications.
M. Wiedemann and T. Melz (Eds.), Smarte Strukturen und Systeme, 339-346, Shaker, 2019.
- L. Grasböck, A. Humer, M. Nader, M. Schagerl, D. Mayer, M. Misol, C. Humer, S. Herold and H. P. Monner,
Wireless Sensor Networks and Energy Harvesting for Energy Autonomous Smart Structures.
M. Wiedemann and T. Melz (Eds.), Smarte Strukturen und Systeme, 391-399, Shaker, 2019.
- C. Kralovec and M. Schagerl,
Experimental measurements of vibrations of artificial sub-surface cracks and evaluation of identification potential for the electro-mechanical impedance method.
A. L. Gyekenyesi (Ed.), Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, Civil Infrastructure, and Transportation XIII, 10971, Society of Photo-Optical Instrumentation Engineers (SPIE), 2019.
- R. Soman, M. Schagerl, C. Kralovec, K.-U. Schröder, A. Preisler and W. Ostachowicz,
Application of Kalman filter based neutral axis tracking for crack length quantification in beam structures.
P. Fromme (Ed.), Health Monitoring of Structural and Biological Systems, 10972, Society of Photo-Optical Instrumentation Engineers (SPIE), 2019.

- C. Humer, M. Schagerl and C. Kralovec,
Testing the scattering analysis method for guided waves by means of artificial disturbances.
Proceedings of the 7th Asia-Pacific Workshop on Structural Health Monitoring APWSHM, The e-Journal of Non-destructive Testing, ISBN 978-3-00-060359-4 database NDT.net, 2019.
- M. Schagerl and M. Grillenberger,
On the back calculation of material strength values from strength test results.
Proc. Appl. Math. Mech., DOI: 10.1002/pamm.201800342 (2pp), 2018.
- S. Gschoßmann, T. Oberascher and M. Schagerl,
Quantification of subsurface cracks in a thin aluminium beam by the use of nonlinear guided wave theory – a numerical and model-based approach.
Proceedings of the 9th European Workshop on Structural Health Monitoring EWSHM, The e-Journal of Non-destructive Testing, 23, ISSN 1435-4934 database NDT.net, 2018.
- C. Kralovec, M. Schagerl and M. Mayr,
Localization of damages by model-based evaluation of electro-mechanical impedance measurements.
Proceedings of the 9th European Workshop on Structural Health Monitoring EWSHM, The e-Journal of Non-destructive Testing, 23, ISSN 1435-4934 database NDT.net, 2018.
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Updating the finite element model for electrical impedance tomography using self-organizing map.
H. Sohn (Ed.), Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems, 10598, Society of Photo-Optical Instrumentation Engineers (SPIE), 2018.
- C. Kralovec, T. Erlinger, S. Gschoßmann and M. Schagerl,
Manufacturing of artificial sub-surface cracks to investigate non-linear features of electro-mechanical impedance measurements.
P. J. Shull (Ed.), Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, Civil Infrastructure, and Transportation XII, 10599, Society of Photo-Optical Instrumentation Engineers (SPIE), 2018.
- M. Winklberger, P. Heftberger, M. Sattlecker and M. Schagerl,
Fatigue strength and weight optimization of threaded connections in tie-rods for aircraft structures.
Procedia Engineering 213:374-382, 2018.
- C. Kralovec, M. Schagerl and T. Erlinger,
Model-based Evaluation of Electro-mechanical Impedance Measurements for Detection and Size Identification of Face Layer Debondings in Sandwich Panels.
F.-K. Chang and F. Kopsaftopoulos (Eds.), Structural Health Monitoring – Real-Time Material State Awareness and Data-Driven Safety Assurance, 1:472-479, DEStech Publications, 2017.
- Y. Zhao, S. Gschoßmann and M. Schagerl,
Observing the Fracture Behavior of a Center Crack via Electrical Impedance Tomography Using Inkjet-printed Carbon Nanotube Thin Films.
F.-K. Chang and F. Kopsaftopoulos (Eds.), Structural Health Monitoring – Real-Time Material State Awareness and Data-Driven Safety Assurance, 2:2994-3001, DEStech Publications, 2017.
- S. Hörrmann, A. Adumitroaie, C. Kralovec and M. Schagerl,
The influence of resin starved area manufacturing imperfections on the mechanical performance of non-crimp fabric CFRP laminate.
Proceedings of 21st International Conference on Composite Materials, Paper ID 3762 (10 pages), International Committee on Composite Materials (ICCM), 2017.
- S. Gschoßmann and M. Schagerl,
Numerical Study of Interaction of Nonlinear Guided Waves with Breathing Damage in Isotropic material.
A. Güemes et al. (Eds.), Proceedings of 8th ECCOMAS Thematic Conference on Smart Structures and Materials, 1347-1357, International Center for Numerical Methods in Engineering (CIMNE), ISBN 978-84-946909-3-8, 2017.

- C. Humer, C. Kralovec and M. Schagerl,
Scattering Analysis of Lamb Waves at Subsurface Cracks in Isotropic Plates.
A. Güemes et al. (Eds.), Proceedings of 8th ECCOMAS Thematic Conference on Smart Structures and Materials, 1843-1853, International Center for Numerical Methods in Engineering (CIMNE), ISBN 978-84-946909-3-8, 2017.
- M. Grillenberger and M. Schagerl,
Strain rate dependent yield behavior under compression load of metallic materials based on experimental data.
J. F. S. Gomes and S. A. Meguid (Eds.), Proceedings of 7th International Conference Mechanics and Materials in Design, 301-306, Publisher INEGI/FEUP, ISBN: 978-989-98832-7-7, 2017
- S. Hörrmann, M. Schagerl, M. Cichocki and C. Kralovec,
Direkte Messung des elektr. Widerstands zur Schadensdetektion in anisotropen CFK Laminaten.
M. Wiedemann and T. Melz (Eds.), Smarte Strukturen und Systeme, 39-49, Shaker, 2017.
- P. Grüner, Y. Zhao and M. Schagerl,
Characterization of the spatial elastoresistivity of inkjet-printed carbon nanotube thin films for strain-state sensing.
H. F. Wu et al. (Eds.), Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace and Civil Infrastructure, 10169, Society of Photo-Optical Instrumentation Engineers (SPIE), 2017.
- Y. Zhao, L. Wang, S. Gupta, K. Loh and M. Schagerl,
Comparison of electrical impedance tomography inverse solver approaches for damage sensing.
H. F. Wu et al. (Eds.), Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace and Civil Infrastructure, 10169, Society of Photo-Optical Instrumentation Engineers (SPIE), 2017.
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An inkjet-printed carbon nanotube strain distribution sensor for quasi real-time strain monitoring of lightweight design materials.
P. Vincenzini (Ed.), CIMTEC 2016, Advances in Science and Technology, 101:3-8, Trans Tech Publications, 2017.
- M. Schagerl, S. Gschoßmann, N. K. Karna, M. Meindlhumer, C. Viechtbauer and Y. Zhao,
On the development of Structural Health Monitoring systems for automatic strength control of commercial aircraft spoilers.
M. Wiedemann and T. Melz (Eds.), Smarte Strukturen und Systeme, 460-471, De Gruyter Oldenbourg, 2016.
- S. Hörrmann, A. Adumitroaie and M. Schagerl,
Through-thickness fatigue behavior of non-crimp fabrics featuring manufacturing defects.
Procedia Structural Integrity, 2:158-165, 2016.
- M. Meindlhumer and M. Schagerl,
Strength and weight equivalent substitution of large sandwich panels by monolithic CFRP structures.
M. Papadrakakis et al. (Eds.), Proceedings of the 8th European Congress on Computational Methods in Applied Sciences and Engineering, 1:2190-2201, ISBN 978-618-82844-0-1, 2016.
- S. Gschoßmann, Y. Zhao and M. Schagerl,
Development of data acquisition devices for electrical impedance tomography of composite materials.
Proceedings of the 17th European Conference on Composite Materials ECCM, ISBN 978-3-00-053387-7, 2016.
- A. Adumitroaie, E. J. Barbero and M. Schagerl,
Intra-laminar progressive damage of general configuration laminated composites.
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- S. Gschoßmann, C. Humer and M. Schagerl,
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Shear Stress Monitoring of a Single-Lap Joint Using Inkjet-Printed Carbon Nanotube Strain Distribution Sensor.
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- M. Grillenberger and M. Schagerl,
Extended Characterization of the Hardening and Failure Behavior of Advanced High Strength Steels at Dynamic Compression Load.
A. Öchsner and H. Altenbach (Eds.), Properties and Characterization of Modern Materials, Series Advanced Structured Materials, 33:157-166, Springer Verlag, 2016.
- M. Schagerl, C. Viechtbauer and M. Schabberger,
Optimal Placement of Fiber Optical Sensors along Zero-strain Trajectories to Detect Damages in Thin-walled Structures with Highest Sensitivity.
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- C. Viechtbauer, T. Erlinger and M. Schagerl,
Evaluation of the E/M Impedance Method as a SHM Technique for Large Civil Aircraft Spoilers: Analytical, Numerical and Experimental Studies Performed with Simple Structures.
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- M. Schagerl, C. Viechtbauer and S. Hörrmann
On the monitoring and implications of growing damages caused by manufacturing defects in composite structures.
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- Y. Zhao, C. Viechtbauer, K. Loh and M. Schagerl,
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- C. Kralovec, M. Schagerl and K.-U. Schröder,
Multidisciplinary Conceptual and Structural Design of a New Generation of Aircraft Overhead Stowage Compartment.
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- K.-U. Schröder, A. Preisler, C. Viechtbauer and M. Schagerl,
On the Damage Diagnosis Based on Structural Analysis Data.
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- C. Viechtbauer, M. Schagerl and K.-U. Schröder,
Validation of Structural Parameters as Damage Indicators for Monitoring Plates in the Post-Buckling Regime.
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- M. Schagerl,
Belastungsgerechte Auslegung und Festigkeitskontrolle von Leichtbauteilen.
R. Schledjewski (Ed.), 23. Leobener Kunststoff-Kolloquium: Hocheffiziente Verbundwerkstoffe, Schriftenreihe Kunststofftechnik Leoben, 4:41-48, 2014.

- M. Meindlhumer, M. Schagerl and M. Fleischmann,
Towards a monolithic design of large aircraft wing spoilers using numerical topology and laminate optimization.
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- G. Prechtel, M. Schagerl and K.-U. Schröder,
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- C. Viechtbauer, M. Schagerl and K.-U. Schröder,
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- K.-U. Schröder, C. Viechtbauer and M. Schagerl,
Identification and Monitoring of Structural Parameters as Damage Indicators for Plates in the Post-Buckling Regime.
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Industry Contributions

During my employment at  **AIRBUS** from 2002 to 2009 issuing of various technical articles on aircraft structure analysis, for example

- Static strength analysis of pins in metallic shear lugs,
- Analysis method of composite frame structures,
- Concept for a static strength analysis procedure for multi-girder rear fuselage frames,
- On the lateral stability of long, laterally unsupported fuselage frame sections,
- Nonlinear FE studies of the effective width of aircraft skins under frame bending,
- An analytical formula for the effective width of pillowing and flattening curved aircraft panels,

and further technical memoranda for structure specific design, policies for aircraft certification, structure component test specifications and structure analysis tool specifications for external programming. These documents are stored at the Airbus document center and underlie the confidentiality restrictions of Airbus.

Since 2003 I am member of the Industry Committee for Structural Analysis (IASB) – the issuing authority of the Handbook Structure Analysis (HSB). From 2006 to 2019 I was chairman of this committee. The HSB documents agreed structure analysis methods and procedures for aeronautical design and contains chapters on definitions, materials, joints, static analyses, stability, static strength, fatigue and damage tolerance, and vibrations.



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