

Wednesday, 14 October 2026

Laboratory for Product Development and Lightweight Design
TUM School of Engineering and Design
Technical University of Munich

VENUE TUM Entrepreneurship Center
Lichtenbergstr. 6
85748 Garching bei München

Lageplan: <https://osm.org/go/0JBkm9iaa?m=>

13:00 **Opening:** Markus Zimmermann (Technical University of Munich)

Session 1: Materials and Structural Performance

13:10 Scholz, F., Strauß, L., Löwisch, G., Bayerdörfer, I. (Universität der Bundeswehr München): Service Life Analysis of a Topology-optimized Nose Landing Gear Fork Made from Additively Manufactured AISi10Mg

13:25 Panek, S., Krause, D. (Hamburg University of Technology): Predicting Effects of Geometric Imperfections on the Buckling Load of Cylindrical Composite Shells in Combined Loading

13:40 Baur¹, J., Emam², S., Nandelstaedt¹, J., Schnierle¹, M., Take¹, J., Carosella¹, S., Elfeky², A., El Qady², H., Mahmoud², A., Middendorf¹, P., Ramzy², A. (¹University of Stuttgart, ²German University in Cairo): Process Development and Mechanical Performance of Tailored Natural Fiber Reinforced Polymers Using Thermoplastic Matrices

13:55 Goodyear, B., Wang, Y., Ead, A., Mertiny, P. (University of Alberta): Split-Disk Testing and FEA-Based Inverse Parameter Identification for Characterizing the Mechanical Response of Ring Specimens

14:10 Break (25 minutes)

Session 2: Component Design and Joining

14:35 Bold, J., Elhadidy, O. (Boeing): Calculation and Simulation of Bolted Joints: from past to today

14:50 Ebert, L., Blacha, M. (Airbus Helicopters): Numerical Investigation of Structural-Mechanical Effects in Intermeshing Damage-Tolerant Adhesive Joints under Combined In-Plane Tension and Out-of-Plane Pressure

15:05 Senger, S. (AdvanTec GmbH): Additiv gefertigter Wärmetauscher in Flugzeuoberflächen

15:20 Pfenicher, L. (Technical University of Munich): Structural Layout of a Formula Student CFRP Monocoque

15:35 Break (25 minutes)

Session 3: Structural Optimization and Digital Design

16:00 Ruf, T., Witzgall, C., Wartzack, S. (Friedrich-Alexander-Universität Erlangen-Nürnberg): Generative Design from the Perspective of Information Modeling: Methodological Reconstruction of Algorithmically Generated Geometries into Parametric Component Modeling

16:15 Steber¹, G., Buchmeier², J., Hartmann², M. (¹BMW Group, ²Technische Hochschule Deggendorf): Multimodal and Multidisciplinary Structural Optimization of a Vehicle Axle Carrier

16:30 Hartwig¹, F., Erber², M., Rosnitschek¹, T., Hartmann², C., Volk², W., Tremmel¹, S. (¹University of Bayreuth, ²Technical University of Munich): Method to overcome surface roughness introduced by multi objective algorithms in node-based shape optimisation.

16:45 Hentschel¹, R., Rosnitschek¹, T., März², R., Lechner², M., Merklein², M., Tremmel¹, S. (¹University of Bayreuth, ²Friedrich-Alexander-Universität Erlangen-Nürnberg): Automated Image to CAD Reconstruction of Bead Like Reinforcement Contours in Sheet Metal Structures

17:00 **Get-together**



Wednesday, 28 October 2026

Institute of Lightweight Engineering
Department of Aerospace Engineering

Institute for Aeronautical Engineering
Chair for Composites

VENUE Werner-Heisenberg-Weg 39
85579 Neubiberg
Building 33, Room 0131

<https://www.openstreetmap.org/?mlat=48.081174&mlon=11.640699#map=19/48.081174/11.640699>

ADDITIONAL INFORMATION FOR YOUR PARTICIPATION

Access to Campus through visitor gate (Westtor, Crossing Universitätsstraße, Zwingerstraße).

Registration is required via: <https://events.unibw.de/leichtbau/msld2026/>

ID card required.

13:00 **Opening:** Philipp Höfer & Tobias Dickhut (Universität der Bundeswehr München)

Session 1:

13:10 Khot, T., Siegl, M., Loos, J., Ehrlich, I. (OTH Regensburg): Direct Mechanical Recycling of Carbon Fiber Reinforced Polycarbonate Organosheet Waste into Filaments for Fused Filament Fabrication

13:30 Hieke, L., Beier, U., Hübner, F., Machunze, W., Meer, T., Ruckdäschel, H. (Universität Bayreuth, Airbus): Tailoring Disulfide Epoxy Vitrimers for Composite Applications: Influence of disulfide content on thermal and mechanical properties

13:50 Korsin, C., Hübner, F., Machunze, W., Beier, U., Meer, T., Ruckdäschel, H. (Universität Bayreuth, Airbus): Bi-Accelerated Co-Curing of Composite Parts as a Promising Alternative Joining Method in Aerospace Applications: Screening of structurally different epoxy-amine combinations with respect to their reactivity

14:10 Break (30 minutes)

Session 2:

14:40 Nair, A., Sachdeva, P., Mittelstedt, C. (Technische Universität Darmstadt): Numerical Investigation of Super-Ellipsoidal Lightweight Hydrogen Storage Vessels to Identify Critical Design Parameters

15:00 Sachdeva, P., Kappel, A., Mittelstedt, C. (Technische Universität Darmstadt): Stress Analysis of Thick-Walled Superellipsoidal Composite Vessels: A Chebyshev-Ritz Approach

15:20 Nuño, M., Piller, G., Keller, S., Righi, M., Bold, J. (Boeing, Aurora Aerospace, Zürcher Hochschule für Angewandte Wissenschaften): Aerostructural Assessment of Double-Double Laminates for Aircraft Wings

15:40 Break (30 minutes)

Session 3:

16:10 Srb, P., Mlýnek, J. (Technische Universität in Liberec): Mathematical Modelling and Geometrically Optimal Roving Winding onto a Core of Frame Composite

16:30 Ralf Cuntze: Does a logical structural mechanics building exist regarding strength failure criteria and the number of material properties

17:00 **Get-together**



Wednesday, 11 November 2026

Department of Mechanical, Automotive and Aeronautical Engineering
Fakultät für Maschinenbau, Fahrzeugtechnik, Flugzeugtechnik
University of Applied Sciences Munich – Hochschule München

VENUE Raum R 1.049 (Falk F. Strasczeg Hall, „Blaue Tonne“, R-Bau, 1. Stock)
Eingang Lothstr. 64, 80335 München
Parken: Lothstr. 64 (Einfahrt links neben dem „Roten Würfel“)
Straßenbahn: Haltestelle Hochschule München (Lothstr.)

13:00 [Opening](#): Klemens Rother (Hochschule München)

[Session 1: Design and Simulation](#) (Chair: Klemens Rother)

13:10 Leon Frederick Stiller, Marcel Bartz (TU Dortmund): Static and Dynamic Evaluation of Graded TPMS Structures for Topology-Optimized Lightweight Components

13:30 Nishant Chavan, Marco Siegl, Jan Loos, Ingo Ehrlich (OTH Regensburg): A Machine Learning-Based Approach for Process Optimization in Fibre-Reinforced Fused Filament Fabrication Components

13:50 Jonathan Gabriel Ehrenwirth, Neven Majic, Martin Straub (TH Augsburg): A Comparative Study of Automated Modeling Approaches for Lay-Up Optimization for Type-IV Hydrogen Pressure Vessels

14:10 Rainer Arelt (Airbus Helicopters): Analysis of Sandwich Structures

14:30 Florian Hollrotter (Institut für Material- und Bauforschung IMB, Hochschule München): Ein Überblick zu dem neuen Code Whitehead für aeroelastische Analysen von Membranen

14:50 Break (40 Minutes)

[Session 2: Materials and Structures](#) (Chair: Henning Stoll)

15:30 Oskar Spoiden (TU München): Flankentragfähigkeit Kunststoffzahnräder

15:50 Shreyas Nandakumar Harithsa, Somashekar S. Hiremath (Indian Institute of Technology Madras, Chennai, India): Multifunctional Mechanical Performance of Additively Manufactured Bio-Inspired Hierarchical Structures

16:10 Frederike Leutner, Patricia Erhard (Fraunhofer IGCV Garching): Funktional gradierte, wasserlösliche Salzkerne für großformatige Faserverbund-Hohlstrukturen

16:30 Jan Lennart Ant, David Grundmann, Marcel Bartz (TU Dortmund): Structural control for adaptive lightweight design using redundant rope actuators in a bending beam

16:50 Max Hilarius (White ip group): Lightweight Design Radar for Unmanned Aircraft Systems

17:10 [Get-together](#)

