Prof. Dr. Markus Zimmermann
Laboratory for Product Development and Lightweight Design
Technical University of Munich

Prof. Dr. Philipp Höfer
Institute of Lightweight Engineering
Prof. Dr. Tobias Dickhut
Institute for Aeronautical Engineering
Chair for Composites
Bundeswehr University Munich

Prof. Dr. Alexander Horoschenkoff
Prof. Dr. Klemens Rother
Prof. Dr. Jörg Middendorf
Department of Mechanical, Automotive and Aeronautical Engineering
University of Applied Sciences Munich

Updated - Aktualisiert

- Invitation and Agenda -

Munich Symposium on Lightweight Design 2020

Münchner Leichtbauseminar 2020

03.11.2020 (University of Applied Sciences Munich): **online**
17.11.2020 (Technical University of Munich): online
02.12.2020 (Bundeswehr University Munich): integrated with TUM

Homepage:

https://www.mw.tum.de/en/lpl/laboratory/symposium-on-lightweight-design/

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- **No registration** is needed.
- **Participation** is **free** of charge.

Presentations and Dates in Winter 2020/21

Dienstag 03.11.2020

Fakultät für Maschinenbau, Fahrzeugtechnik und Luft- und Raumfahrt-technik, Hochschule München. Online Seminar:
https://hm-edu.zoom.us/j/97848570686?pwd=SEx6a3hKYkplS1ZMV09OSnVFM1Q0QT09
(Meeting-ID: 978 4857 0686, Password: write an eMail to alexander.horoschenkoff@hm.edu)

14:00 Josef Neuhäusler, Klemens Rother (Hochschule München): Anwendung der Theorie von S. Tsai auf ein Seitenleitwerk

14:25 Martin Denk, Klemens Rother, Kristin Paetzold (Universität der Bundeswehr, Hochschule München): Automatic Parametrization of Topology Optimization Results using Euclidian Distance Transformation and Thinning for Skin Subdivision Surface Modelling

14:45 Aswin Haridas, Holger Speckmann (Testia Gmbh, Bremen): Structural Health Monitoring (SHM) goes to Space

15:30 **Pause**

15:45 Vorstellung des Forschungsprojekts Bauraumeffiziente Hydrogenspeicher optimierter Nutzbarkeit- BRYSON (gefördert durch das Bundesministerium für Wirtschaft und Energie)

Michael Ruf, Hans-Ulrich Stahl, Klass Kunze, Swen Zaremba, Alexander Horoschenkoff, Thomas von Unwerth, Klaus Drechsler (BMW AG, Technische Universität München, Hochschule München, Technische Universität Chemnitz): Neue Bauweisen von Wasserstoffdruckbehältern für die Integration in zukünftige Fahrzeugarchitekturen

16:30 Alexander Hupfeld, Martin Huber, Alexander Horoschenkoff (Hochschule München): Wasserstofftank mit Zugverstrebung

Tuesday 17.11.2020

Laboratory for Product Development and Lightweight Design, Technical University of Munich. Online Event: https://tum-conf.zoom.us/j/5870230925

14:00 M. Zimmermann (Technical University of Munich, LPL): Opening

14:05 T. Ehlers, R. Lachmayer (Leibniz Universität Hannover): Design of a motorcycle triple clamp optimized for stiffness and damping

14:35 E. Wehrle (Free University of Bozen-Bolzano): Lightweight engineering design of dynamic systems with gradient-based design optimization

15:05 D. Mohr (ETH Zurich): Dynamic Response of Metallic Lattice Materials: Experiments & Modeling

15:35 **Coffee break**

15:55 J. Mayer, S. Wartzack (Friedrich-Alexander-Universität Erlangen-Nürnberg): A Concept Towards Automated Reconstruction of Topology Optimized Structures Using Medial Axis Skeletons

16:25 M. Geiss, P. Buschkamp, B. Sang, H. Loew, S. Rapp (OHB System AG): Design and Optimization of Ultra-Stable Fine-Pointing Structures for the CHIME Instrument

16:55 M. Biedermann, M. Widmer, N. Vettiger, M. Meboldt (ETH Zurich): Benefits for combination of additive manufacturing (AM) with carbon fiber reinforced polymers (CFRP) demonstrated using real-world application for components of a motorcycle

17:25 M. Sause, F. Linscheid, C. Oblinger, S. Gade, S. Kalafat (Universität Augsburg): Hard- and Software fusion for process monitoring during machining of fiber reinforced materials

17:55 **Discussion**