

7th WZL Gear Conference in the USA, July 18/19, 2017

hosted by Liebherr Gear Technology, Inc. in Ann Arbor, MI



LIEBHERR



7th WZL Gear Conference in the USA

- July 18th-19th 2017
- Hosted by Liebherr Gear Technology
- Location: Sheraton, Ann Arbor, Michigan
- Scope of current research topics presented by WZL
- Scope of current industry topics presented by Liebherr Gear Technology
- Topics include gear design, manufacturing and testing
- Social program incl. evening reception
- Contact: GearSeminarWZL@liebherr.com

**Impression of last years
WZL Gear Conference in the
USA with 110 attendees**



Wednesday July 19, 2017

- 09:00 a.m. Welcoming Remarks
Prof. Dr.-Ing. Christian Brecher
Scott Yoders, Liebherr
- 09:10 a.m. Benefits and Potentials of Model-Based Data Analysis in Gear Manufacturing
Prof. Dr.-Ing. Christian Brecher
- 09:40 a.m. Skiving³: The Liebherr Approach
Dr.-Ing. Oliver Winkel, Liebherr
- 10:10 a.m. Coffee Break
- Session 3: Hard Finishing of Gears**
Chairman: Prof. Dr.-Ing. Christian Brecher
- 10:30 a.m. Manufacturing of Topological Flank Modifications and their Influence on the Operational Behavior
Jens Brimmers M.Sc.
- 11:00 a.m. Current Trends in Gear Grinding
Dr.-Ing. Andreas Mehr, Liebherr
- Session 4: Metrology, Tribology and Acoustics of Gears**
Chairman: Prof. Dr.-Ing. Christian Brecher
- 11:30 a.m. Analysis of the Dynamic Excitation Behavior of High-Speed Transmissions
Mubarik Ahmad M.Sc.
- 12:00 noon Lunch
- 01:00 p.m. Actual Development in Gear Metrology
Heinrich Brüderle, Wenzel
- 01:30 p.m. Physical and Chemical Analysis of Running-in in Gear Applications
Dieter Mevissen M.Sc.
- 02:00 p.m. Closing Remarks
Prof. Dr.-Ing. Christian Brecher
Dr.-Ing. Andreas Mehr, Liebherr



7th WZL Gear Conference USA



Sheraton, Ann Arbor, Michigan
USA
July 18 & 19, 2017

Hosted by

LIEBHERR

Tuesday, July 18, 2017

- 08:30 a.m. Welcome Reception and Registration
- 09:00 a.m. Welcoming Remarks
Prof. Dr.-Ing. Dr.-Ing. E.h. Dr. h.c. Dr. h.c.
Fritz Klocke
Peter Wiedemann, Liebherr
- 09:10 a.m. The New Gear Department at Fraunhofer CMI in Boston
Prof. Andre Sharon, Fraunhofer CMI
Dipl.-Ing. Marco Kampka
- Session I: Process Chains**
Chairman: Prof. Dr.-Ing. Dr.-Ing. E.h. Dr. h.c. Dr. h.c.
Fritz Klocke
- 09:30 a.m. Integrative Computational Materials Engineering - Challenges and Opportunities for Gear Manufacturing
Prof. Dr.-Ing. Dr.-Ing. E.h. Dr. h.c. Dr. h.c.
Fritz Klocke
- 10:00 a.m. Liebherr Automation Solutions
Martin Winterstein, Liebherr
- 10:30 a.m. Coffee Break
- 11:00 a.m. Influence of Different Manufacturing Processes on Properties of Surface Densified PM Gears
Tim Frech M.Sc.
- 11:30 a.m. Virtual Gear Production Chain – An Added Value?
Dr.-Ing. Dipl.-Wirt.-Ing. Christoph Löpenhaus
- 12:00 noon Lunch
- Session 2: Soft Machining of Gears**
Chairman: Prof. Dr.-Ing. Dr.-Ing. E.h. Dr. h.c. Dr. h.c.
Fritz Klocke
- 01:00 p.m. Process Analysis for Discontinuous Bevel Gear Cutting Based on a Manufacturing Simulation
Julia Mazak M.Sc.

Tuesday July 18, 2017

- 01:30 p.m. Gear Shaping/Maximum Flexibility for Gear Manufacturing
Dr.-Ing. Andreas Mehr, Liebherr
- 02:00 p.m. Coffee Break
- 02:30 p.m. Influence of the Effective Tool Angles on the Tool Wear in Gear Hobbing
Felix Kühn M.Sc.
- 03:00 p.m. Special Application for Gear Hobbing
Dr.-Ing. Oliver Winkel, Liebherr
- 03:30 p.m. Closing Remarks
Prof. Dr.-Ing. Dr.-Ing. E.h. Dr. h.c. Dr. h.c.
Fritz Klocke
Dr.-Ing. Oliver Winkel, Liebherr
- 07:30 p.m. Evening Reception
The guests are kindly invited by Liebherr
Further information will follow

During Lunch and Coffee Breaks:

Opportunity to visit WZL Gear Software Demonstration Desk



The WZL Gear Conference

For more than 50 years the annual WZL Gear Conference in Aachen, Germany, has been fostering technical collaboration and communication among the members of the WZL Gear Research Circle. The two-day conference is devoted exclusively to the presentation of the latest research in gear design, manufacturing and testing. Additionally, the software resources of the WZL Gear Research Circle are available for examination, including solutions for gear design and manufacturing process development. Participants of the conference are encouraged to tour the WZL laboratory with its shop floor and test rigs. Within this environment associations are formed and the exchange of knowledge among the members of the technical community is promoted. With up to 300 participants from Europe and overseas, the WZL Gear Conference is one of the largest annual events dedicated to gear technology in Europe.

The WZL Gear Conference in the USA

Eleven years ago exclusive contents of the Aachen gear conference were first presented in the USA. The Seventh WZL Gear Conference - USA is being hosted by Liebherr Gear Technology and will provide the opportunity for North American companies to connect with WZL and learn about current research activities.

For questions about the WZL Gear Research Circle, please contact:

gears@wzl.rwth-aachen.de and visit
<http://www.wzl.rwth-aachen.de> and
<http://www.getriebekreis.de>



To register for the conference, please contact
Liebherr Gear Technology Inc., Saline, Michigan
GearSeminarWZL@liebherr.com
The conference fee is \$260 per attendee.