Fifth WZL Gear Conference
USA

Rochester, NY
USA
October 22 & 23, 2014

Hosted by
Gleason
Tuesday, October 21, 2014
2 – 5 p.m. Welcome Reception and Registration
Exhibits, software and practical demonstrations

Wednesday, October 22, 2014
9:00 a.m. Demonstrations in the R&D Laboratory
12:00 noon Welcome Reception
Lunch
1:00 p.m. Welcoming Remarks
Prof. Dr.-Ing. Fritz Klocke
Prof. Dr.-Ing. Hermann J. Stadtfeld

1:10 p.m. Gear Research Activities at WZL, RWTH Aachen University
Dr.-Ing. Markus Brumm

1:30 p.m. Non-Involute Gearing: its Function and Manufacturing Compared to Established Systems
Prof. Dr.-Ing. Hermann J. Stadtfeld, cand. Ing. Jasmin Saewe, Gleason Corporation

Session I: Gear Design and Operating Performance
Chairman: Prof. Dr.-Ing. Fritz Klocke

2:00 p.m. Virtualization and Cross-linking in Production
Prof. Dr.-Ing. Christian Brecher

2:30 p.m. Coffee Break

3:00 p.m. Pulsating Helical Gears and Calculation of the Tooth Root Load Carrying Capacity
Dipl.-Ing. Markus Rüngeler

3:30 p.m. Load Distribution, Root Stress and Efficiency Analyses of Face-hobbed and Face-milled Hypoid Gears
Prof. Ahmet Kahraman, Dr. David Talbot, Ohio State University

4:00 p.m. Robust Bevel Gear Design via Variational Calculus
Dipl.-Ing. Peter Knecht

4:30 p.m. Coffee Break

5:00 p.m. Tooth Contact Analysis of Asymmetric Planet Gear Stages
Dipl.-Ing. Daniel Piel

5:30 p.m. Dynamic Transmission Error Measurement in Gear Applications
Dr.-Ing. Markus Brumm

7:30 p.m. Evening Reception
The guests are kindly invited by Gleason Corporation - Further information will follow

Thursday, October 23, 2014
9:00 a.m. Technology demonstrations - Gleason Factory
12:00 noon Lunch
1:00 p.m. Trends in Bevel Gear Development
Dr.-Ing. Markus Brumm

Session II: Manufacturing
Chairman: Prof. Dr.-Ing. Christian Brecher

1:30 p.m. Gleason 4.0
Prof. Dr.-Ing. Hermann J. Stadtfeld, Gleason Corporation

2:00 p.m. Smart Factories – Challenges and Potentials
Prof. Dr.-Ing. Fritz Klocke

2:30 p.m. Coffee Break

3:00 p.m. Gear Finish Hobbing - Potentials of Several Cutting Materials
Dipl.-Ing. Deniz Sari

3:30 p.m. Process Analysis of Gear Honing of Transport Transmission Gears
Dipl.-Ing. Marco Kampka

4:00 p.m. Development of a Cutting Force Model for Generating Gear Grinding
Dipl.-Ing. Florian Höbner

4:30 p.m. Improvements in Manufacturing Related Surface Strength Increase and Rolling Contact Fatigue Simulation
Dipl.-Wirt.-Ing. Christoph Löwenhaus

5:00 p.m. Closing Remarks
Prof. Dr.-Ing. Christian Brecher
Prof. Dr.-Ing. Hermann J. Stadtfeld

During Lunch and Coffee Breaks:
Opportunity to visit WZL Gear Software Demonstration Desk.

Shuttle Service between Gleason and Hyatt Hotel provided.

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

Nine years ago exclusive contents of the Aachen gear conference were first presented in the USA. The Fifth WZL Gear Conference - USA is being hosted by Gleason Corporation 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
Gleason Corporation, Rochester, NY
wzl2014@gleason.com

The conference fee is $260 per attendee.