Meeting Overview
AGMA Fall Technical Meeting (FTM)
Sept. 24-26 Chicago, IL
AGMA FTM Attendance

• Attendance increase of 14% from 2016 (the last non-tradeshow year)
• 123 Total Attendees
  • 100 Full registrations
  • 23 Single-session registrations
• 10 different countries represented by attendees
• 88 different organizations represented by attendees
AGMA FTM Papers

- 26 papers presented
- 1 special presentation
- Presented papers were all double-blind, peer-reviewed papers
  - Each paper is reviewed by three reviewers from the industry with expertise in the subject matter
- All papers presented at FTM will be indexed in Scopus, the largest international database of peer-reviewed literature
  - The database is used by academic and industry researches from all over the globe
2018 FTM Presentations
Session I: Application, Design, and Rating

- **Filling Some Gaps in Spline Design Guidelines: Centering, Friction, and Misalignment** Stephen McKenny, General Motors Co.

- **Methods to Determine Form Diameter on Hobbed External Involute Gears** Shuo Zhang, Oerlikon Fairfield

- **SPECIAL PRESENTATION ANSI/AGMA 2002-C16: Tooth Flank Modifications Update** John M. Rinaldo

- **Optimization of Rack and Pinion for Offshore Jack-Up Applications** Adrian Nowoisky, Oerlikon Fairfield

- **Gearbox Development for the Food and Beverage Processing Industry** Sandeep Thube, Sumitomo Drive Technologies
2018 FTM Presentations
Session II: Optimization and Performance

- **Increasing Static Friction with Laser** Gerhard Flores, Gehring Technologies GmbH
- **Design and Optimization of a Hybrid Vehicle Transmission** Massimiliano Turci, Studio Tecnico Turci
- **Influence of Thermal Distortion on Spur Gear Tooth Contact** Jon Larrañaga, Mondragon University
- **Oil-Off Characterization Method Using In-Situ Friction Measurement for Gears Operating Under Loss-of-Lubrication Conditions** Aaron Isaacson, Gear Research Institute, Applied Research Laboratory - Penn State
- **Application of Finite Element Analysis for the Strain Wave Gear Tooth Surfaces Design and Modification** Zhiyuan Yu Penn State University
2018 FTM Presentations
Session III: Gear Wear and Failure

- **Experimental Study on the Pitting Detection Capabilities for Spur Gears Using Acoustic Emission and Vibration Analysis Methods** Mateusz Grzeszkowski, Technical University Berlin, Chair of Electronic Measurement and Diagnostic Technology

- **Optimization of Power Density by Local Gear Failure Modeling** Marco Kampka, Fraunhofer USA

- **Load Intensity Distribution Factor Evaluation from Strain Gauges at the Gear Root** José Calvo Irisarri and Unai Gutierrez, Gamesa Energy Transmission

- **Impact of Root Geometry Manufacturing Deviations from a Theoretical Hob Rack on Gear Bending Stress** Rahul Nigade and Carlos H. Wink, Eaton

- **Fatigue Life Prediction of Spherical Gear Couplings** Ibai Ulacia, Mondragon University

- **Potentials of Free Root Fillets in Planetary Gearbox Applications** Jonas Pollaschek, WZL of RWTH Aachen University
2018 FTM Presentations
Session IV: Manufacturing, Inspection, and Quality Control

- **Microgear Measurement Standards: Comparing Tactile, Optical and Computed Tomography Measurements** Stephan Jantzen, Physikalisch-Technische Bundesanstalt (The National Metrology Institute of Germany)

- **Generative Gear Milling** Yefim Kotlyar, Machine Tool Builders

- **Reducing Tool Wear in Spiral Bevel Gear Machining with the Finite Element Method** Fang Hou, Third Wave Systems

- **Method for High Accuracy Cutting Blade Inspection** Haris Ligata, Gleason Corporation

- **Fully Automated Roughness Measurement on Gears, Even on the Shop Floor** Georg Mies, Klingelnberg

- **Integrating Non-Contact Metrology in the Process of Analysis and Simulation of Gear Drives** Alfonso Fuentes, Rochester Institute of Technology
2018 FTM Presentations
Session V: Materials and Heat Treatment

- Integrated Approach for Gear Testing of High-Performance Clean Steels Dieter Mevissen, WZL of RWTH Aachen University
- Lean Heat Treatment for Distortion Control Volker Heuer, ALD Vacuum technologies GmbH
- Residual Stresses in Case Hardened Steel Gears David Easton, Advanced Forming Research Centre
- Combining Strength and Toughness for Affordable Power Densification in Steel Components E. Buddy Damm, TimkenSteel
- Reliability of Gears – Determination of Statistically Validated Material Strength Numbers Michael Hein, Gear Research Centre (FZG) – Technical University of Munich
Link to Technical Papers

- As an attendee, your company was given access to the papers presented through the event app. If you have problems obtaining the papers, please contact tech@AGMA.org.
FTM Awards

• AGMA Technical Division Executive Committee Chairman Todd Praneis of Cotta Transmission presented the Distinguished Service Award to Terry Klaves

• AGMA Board Chairman Jim Bregi of Doppler Gear Company presented the Next Generation Award to Benjamin Sheen of Eaton
Bowling & Bocce Networking Reception

First off-site networking event to be held at FTM

56 people in attendance
2019 Fall Technical Meeting

• When: **October 14-16, 2019** (In conjunction with Motion + Power Technology Expo)

• Where: **Cobo Center, Detroit, MI**

• Call for papers is now open

• Abstract submission instructions are found at: [https://www.agma.org/2019-call-for-papers/](https://www.agma.org/2019-call-for-papers/)

• Presenters get complementary registration to all FTM sessions

• Paper submission deadline is: **December 14, 2018**
The Gear Industry Needs you on Technical Committees

- AGMA’s 23 technical committees maintain 98 gear industry standards and information sheets, as well as develop new ones
- You do not need to be an expert to join a committee
- For more information on AGMA’s technical committees, see our website: https://www.agma.org/standards/technical-committees/ or email tech@agma.org