

STLE - Houston Section

The Society of Tribologists and Lubrication Engineers

March 5th

8:15 AM Track A/Track B Presentation 1—

Lauren Huffman- DOW-- Synthetic Lubricants for use in **Talk title:** Synthetic Lubricants for use in Industrial Applications

Talk summary: This talk will highlight the benefits and drawbacks to using synthetic lubricants in a variety of industrial lubricant applications. Specifically we will discuss the use of polyalkylene glycols, and silicones in hydraulic fluid, compressor fluid, metalworking and gear lubricant applications.

Lauren's bio: Lauren Huffman is the Application Technology Leader for Lubricants at Dow Chemical in Midland, MI. She received her Ph.D. in Organic Chemistry from the University of Wisconsin in 2009. After a National Research Council postdoctoral fellowship at NIST, she joined Dow in 2011. In her 13 years at Dow, Lauren has worked on process scale up of agricultural and electronics industries molecules. She moved to technical service for specialty lubricants in 2016 and obtained her CLS in 2019. Lauren is active in NLGI, STLE, ASTM and ASHRAE.

9:45 AM Track A/Track B Presentation 2 –

Captain John Cummins, SC, USNR-Retired- Hydrotex Lubrication Excellence - Part 1: Lubricant Selection

Talk Summary: “Lean Maintenance” is a management strategy that aims to apply lean principles and goals to physical asset management. The ultimate goal of “*lean thinking*” is to provide perfect value to the customer through processes that generate zero waste. In this context, waste refers to the use of resources (e.g., time, labor, inventory, energy, consumables, etc.) in any way that does not add value or reliability to the process, final product or service. Lubrication Excellence is absolutely essential in achieving Lean Maintenance! The elements of Lubrication Excellence can be broken down into 4 categories: Lubricant Selection, Lubricant Application, Lubricant Contamination Control, Lubricant Sampling and Inspection

John's Bio: Executive Vice President of Product Technology and Investing Partner of Hydrotex LLP a Texas specialty lubricant and chemical company founded in 1936. Responsible for Research and Development, Technical Services and Dean of Hydrotex Lubrication University. 40+ years of experience in the Lubrication Industry 25 years of experience in the Grease Industry

- 1971 - BS, Illinois Institute of Technology, Chicago, IL
- 1980 - MS, George Washington University, Washington, DC
- Captain, Supply Corps, USNR-Retired
- Member of Society of Tribologists and Lubrication Engineers (STLE) since December 1984
- Certified Lubrication Specialist (CLS™) since October 1997

- A member of the Society of Automotive Engineers (SAE) and the National Lubricating Grease Institute (NLGI)
- Contributing Writer for: TLT Tribology & Lubrication Technology (STLE); Compoundings (Magazine of the Independent Lubrication Manufacturers Association); Lube & Greases Magazine; and Reliability Magazine
- >300 Public classes on lubrication and grease science and lubrication excellence

11:00 AM Lunch/Scholarships Recognition/Keynote Address

Dr. Hong Liang- Texas A&M and STLE National President- Nano-lubes including particle suspension and function as additives and STLE overview

Talk Summary: Static State of STLE and Dynamic Behavior of Nanofluids

Bio: Dr. Hong Liang is Osar S. Wyatt Jr. Professor of J. Mike Walker Department of Mechanical Engineering, Texas A&M University. She currently serves as the President of STLE. Her current research focuses on using nanoparticles as additives to tailor the performance of fluids and developing unique characterization techniques to probe their behavior.

1:00 PM Track A/Track B Presentation 3- Ben Hartman- MRT Labs

Ben Hartman- MRT Laboratories- Comparing Real World Lubrication Varnishing Issues to MPC L.A.B. Color Space Indicators

Bio: Mr. Hartman has been the president and majority owner of MRT Laboratories since 2015. He has a Bachelor of Mechanical Engineering from Georgia Tech and an MBA from Rice University. He maintains an STLE CLS certification. MRT Laboratories has a broad client industry base of clients across the US and Mexico. Many clients are refining and petrochemical companies of the US Gulf Coast.

2:30 PM Track A/Track B Presentation 4 – Hui Wang- Calumet

Dr. Hui Wang- Calumet- Food Grade Lubricant, its formulation, and Challenges

Talk Summary: Food Grade lubricants are intended for use in food industry applications where incidental contact between food and lubricants may occur. They are not intended for consumption or intentional food contact. Because of its possible food contact, food grade lubricants must be formulated from a restricted slate of ingredients to lower health risk. NSF H1 registered and/or ISO 21469 certified lubricants are internationally accepted food grade lubricants. In this presentation, general introduction of food grade lubricant, its formulation, and challenges will be covered.

Bio: Dr Hui Wang is the Research and Development Manager at Calumet Performance Brands. He joined the lubricant business in 2021 after previously working at CF Industries for 8 years. Hui graduated from the University of Arizona with a Ph.D degree in organic chemistry and analytical chemistry.