



Society of Tribologists and Lubrication Engineers

Houston Section

## April 22, 2022 Technical Meeting

### Welcome to STLE Houston Section's 2021-2022 Lunch Seminar Series!

Our seventh and last technical seminar of the season will be held on Friday, April 22, 2022 at noon. While this will still proceed as the originally scheduled “virtual” presentation, **in addition, we will be offering a “live viewing” of the virtual presentation at Maggiano’s Little Italy on Post Oak**, starting off with networking at 11 AM. Robert L. Jackson, Professor of Mechanical Engineering at Auburn University will be presenting “*Multiscale Surface Roughness Modeling of Lubricated Contacts*”. Please reserve the date!

**Abstract:** The transportation, power generation, manufacturing, and biomedical industries all depend upon effective friction, wear and lubrication (tribology) practices for efficient and reliable performance. In lubricated contacts, the mechanisms of wear and friction are governed by both solid and fluid interactions. At small lubricant film thicknesses, the surface roughness affects both the lubricant flow and solid contact. Therefore, numerical models of mixed-lubrication cases must incorporate coupled solid and fluid mechanics solutions. In addition, heat transfer can also be important as the temperatures induce thermal expansion and can cause changes in viscosity and other properties. These models must also include the effect of micro and sometimes nano-scale roughness. Then the considered geometry spans several difference scales. However, if researchers can overcome these obstacles the resulting numerical models prove their worth as powerful analytical and predictive tools.



**Speaker:** Robert L. Jackson is a Professor of Mechanical Engineering at Auburn University. Prof. Jackson’s research interests include contact mechanics, hydrodynamic lubrication, lubricant additives, electrical contacts, and machine component design. In 2012, Prof. Jackson also initiated one of the first undergraduate minors in the field of Tribology. He is an ASME and STLE Fellow and is the Chair for the 2022 STLE Annual Meeting in Orlando, FL.

**Location:** Virtual (free) **OR** join us for lunch and viewing at [Maggiano’s Little Italy](#) (\$50), (2019 Post Oak, Houston) starting off with sign-in and networking at 11 AM prior to 11:30 lunch and the noon presentation. As we have no idea of how many people to expect LIVE at Maggiano’s at this point, early pre-registrations via the Paypal link (also accepts Visa/Master Card) would be appreciated.

To **pre-register** for the VIRTUAL MEETING “***Multiscale Surface Roughness Modeling of Lubricated Contacts***” **presentation only** on April 22, 2022 at noon CST at:

<https://zoom.us/meeting/register/tJAKceiuqTotHtcB-Brncir47UoD8DappWnY>

**STLE has moved to the ZOOM platform, please allow extra time to download the software before the meeting if you have not used this before.**

To **pre-register** and pay for the **Maggianos live viewing**: pre-pay (\$50) by Visa/Master Card prior to the meeting using the Paypal link on our [Calendar webpage](#). Visa/MC also accepted at the door for the “live viewing” lunch seminar.

**Schedule:**

11:00AM – 11:30AM: Doors Open, Sign in, Networking

11:30AM – NOON: Food and Business Meeting

NOON - 1:00PM: Technical Presentation

**Fees:**

None (virtual only); \$50 for the “live viewing” and lunch at Maggiano’s

The STLE Houston Section's Monthly meeting provides a platform to advance your knowledge, learn current trends in tribology, lubrication and related industries, and much more. We're hoping to be back to our normal in-person meetings in September!

**STLE Houston Section Calendar of Events (2021 - 2022)**

September 10, 2021	Todd Cawley of LSI Chemical, " <i>Colorless and Permanently Suspended Nanocarbons in Lubricants</i> "	Virtual
October 8, 2021	Dr. Akash Jena of Lamar University, " <i>The Characterization of Solid-Liquid Systems Using Interfacial Modulus and Work of Adhesion</i> "	Virtual
November 12, 2021	Dr. Ken Hope, STLE President (and Global PAO Technical Services Manager of Chevron Phillips Chemical), " <i>The Current State of STLE</i> "	Virtual
December 17, 2021	Jeffrey Harmening - Manager, EOLCS/DEF/MOM of API, " <i>Importance of EO Audit Program</i> "	Virtual
January 14, 2022	No Meeting This Month	
February 11, 2022	Eirini Spilioti, Technical Account Manager at Gehring-Montgomery, Inc (GMI) will be presenting " <i>Metal Deactivators: Surface Active Additives</i> "	Virtual
Postponed	2022 Annual Houston STLE Lube School	Postponed
March 11, 2022	Dr. Hui Wang, R&D Manager of Calumet Performance Branch, " <i>Environmentally Acceptable Lubricants: Opportunities and Challenges</i> "	Virtual
<b>April 22, 2022</b>	<b>Robert L. Jackson, Professor of Mechanical Engineering at Auburn University, "<i>Multiscale Surface Roughness Modeling of Lubricated Contacts</i>"</b>	<b>Virtual OR "Live Viewing" at <a href="#">Maggiano's</a>, 2019 Post Oak, Houston</b>
Postponed, TBD	Commercial Innovation Forum	Postponed, TBD
May 15 – 19, 2022	<a href="#">STLE Annual Meeting &amp; Exhibition</a>	Walt Disney World, Swan and Dolphin, Orlando, FL
September TBD, 2022	First Technical Meeting of the new season	<a href="#">Maggiano's</a> , 2019 Post Oak, Houston (hopefully!)