

**Mission Statement:**

To advance the science of tribology and the practice of lubrication engineering in order to foster innovation, improve the performance of equipment and products, conserve resources, and protect the environment.

STLE membership supports and expands your professional abilities through:

Education: Top-rated and affordable courses are offered live at a variety of locations or through the Members Only section of the STLE website.

Certification: Earn recognition and valuable credentials through STLE-sponsored programs: Certified Lubrication Specialist ([CLS](#)), Oil Monitoring Analyst ([OMA](#)) and Certified Metalworking Fluids Specialist ([CMFS](#)).

Professional Networking: Offered at two major international conferences, local section meetings or one of 23 technical committees and industry councils.

September 2006

What's happening at IJTC and why you should register now

Upcoming Education courses

The deadline for submissions of papers and student posters for the 2007 STLE Annual Meeting in Philly is Oct 1.

Get a gift for joining STLE's online Metalworking Fluids forum today.

Last chance for the Summer Sale on the Handbook of Lubrication and Tribology. Sale extended until Sept 15.

Sneak peek at the September articles from Tribology and Lubrication Technology

Join, renew or update your STLE membership

**Register Now for the IJTC**

2006 International Joint Tribology Conference (IJTC)
October 23-25, 2006
Hyatt Regency San Antonio on the Riverwalk
123 Losoya Street
San Antonio, TX 78205 USA

This annual conference provides a forum for presentation and exchange of technical and scientific information. A very limited sampling of the topics is listed on the left. If you are a researcher or are interested in what research is currently being done in your field, this is an opportunity to meet and question the

researchers.

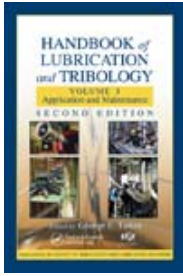
There are more than 200 presentation abstracts online divided into the following tracks.



For more information on the STLE Annual Meeting

Summer sale extended until September 15!!

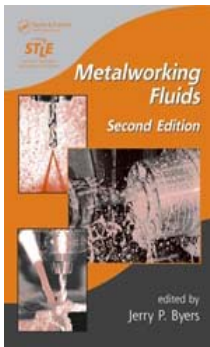
- Track 1 Tribomaterials
- Track 2 Lubricants & Additives
- Track 3 Elastohydrodynamic Lubrication
- Track 4 Hydrodynamic Lubrication & Fluid Film Bearings
- Track 5 Rolling Element Bearings
- Track 6 Engine Tribology
- Track 7 Machine Components Tribology
- Track 8 Contact Mechanics
- Track 9 Magnetic Storage Tribology
- Track 10 Manufacturing/ Metalworking Tribology
- Track 11 Nanotribology
- Track 12 Engineered Surfaces
- Track 13 Biotribology
- Track 14 Emerging Technologies/ Other
- Track 15 Special Symposia on Contact Mechanics
- Track 16 Student Poster
- Track 17 Special Symposium on Nanotribology



[Order online here.](#)

As a special membership benefit, STLE is offering members a savings of \$60 off the publisher's list price on The Handbook of Lubrication and Tribology. STLE members' price is \$190 until September 15th only.

Hurry, this summer sale price will not be extended again!



[Order online here](#)

Here are some of the titles submitted for presentation at the IJTC.

For more details on the abstracts and presenters, visit [Abstracts](#)

To register online: [Registration](#)

Assessment and Verification of a Novel Method for Near Surface Measurement of Mechanical Properties

Viscosity-Temperature Correlation for Liquids

A Model for Contaminant Transport in Lubricated Contact of Rough Surfaces

Effect of Lubrication on Friction and Torque-Tension

Registration for IJTC is \$495 for STLE and ASME members and \$600 for individuals who do not belong to either society. After Oct. 2 add \$100 for all registration fees. For more information, log on to the IJTC logo at www.stle.org. Register online at <https://www.stle.org/secure/jtc/index.cfm> or by fax at http://www.stle.org/jtc/pdf/2006_IJTC_Registration_Form.pdf

To make your reservation at the Hyatt Regency San Antonio go to www.stle.org and select Hotel information <http://www.stle.org/jtc/index.cfm>. The conference rate is \$165 USD per night (US government rate rooms are available on first come basis). Hotel reservation deadline is September 30.

Special Events at IJTC:

Monday Oct 23- Exhibits open at 1 pm

Exhibits showcasing leading global companies, including lab and testing equipment makers, publishers and research organizations, are new for 2006.

Exhibits will be open:

Monday October 23: 1 - 4 pm

Tuesday October 24: 9:30 am – 4 pm

Wednesday October 25: 9:30 am – Noon

Monday Oct 23 - Welcome Reception and Student Posters, 6-8 pm – Hyatt

This social and networking event will feature poster presentations by students from top technical universities around the world. Interact with the tribology researchers of the future.

Tuesday Oct 24 - Keynote Speaker and Luncheon, noon – 2:00 pm.

[Dr. Adrian Bejan](#) is ranked as one of the 100 most highly cited engineering authors worldwide. He will discuss "The Constructal Theory of Generation of Flow Configuration in Nature and Engineering." It yields new designs for electronics, fuel cells and tree networks for transporting people, goods and information. He is the J.A. Jones Professor of Mechanical Engineering at Duke University.

[Tuesday Oct 24 - Complimentary Tour of Southwest Research Institute is limited to the first 50 people, 4:30-7 pm.](#)

Guided tour focuses on four key areas: Ion Surface Engineering Lab, Fuels and Lubricants Test Facilities, Engine and Vehicle Test Facilities and Transmission Test Facility. [SWRI](#) is one of the oldest and largest independent, nonprofit, applied research and development (R&D) organizations in the United States. Complimentary tour and bus transportation. **Hurry, there are only a limited number of reservations still available.**

Monday through Wednesday Oct 22-24 - technical presentations 8:30 am to 5 pm each day

More than 200 technical presentations in four formats include full-length papers, panel discussions, student posters and special symposia on contact mechanics and nanotribology. Top researchers representing 20 countries from around the world will attend and participate at this year's meeting.

Current Weather - Always nice!

<http://weather.noaa.gov/weather/current/KSAT.html>

About the Hotel and the River Walk

In 1981 the Hyatt Regency San Antonio opened with a beautiful new pedestrian connector that linked Alamo Plaza to the River Walk with concrete water falls, waterways and indigenous landscaping. Known as the Paseo del Alamo, this river "extension" actually flows from Alamo Plaza into the San Antonio River through the atrium of the hotel. This connector provides the city with a beautiful urban park that uniquely connects the city's two largest tourist attractions. From an urban planning standpoint, the River Walk may be the best pedestrian-only realm on the continent, with no motor vehicles or bicycles allowed.

Relationship in Threaded Fasteners

Analysis of Contact Pressure and Subsurface Stress Field in Elastic-Plastic Rough Contacts

Introducing PIF (Particle Induced Friction) Theory into Head-Disk Interface

A Rational Human Joint Friction Test using a Human Cartilage-on-Cartilage Arrangement

The Wear Mechanism of Brake Systems – a Model with a Cellular Automaton

A Review of Dry Particulate Lubrication: Powder and Granular Materials

Effect of Oil Additives on Micropitting: Evolution of Surface Roughness (Running-in)

Origins of Pressure and Viscosity Oscillation with Film Thickness in Ultra Thin Lubricating Films

Thermo-Mechanical Effects in Layered Rough Surface Contacts

Deformation of Bowed Silicon Wafers Due to Applied Pressure and Adhesion

Cost Effective Innovative Treatment to Reduce Friction on Hardened Surfaces

Oil-Free Turbomachinery: Current Status, Technology Advances, Hurdles and Next Logical Steps towards Future Propulsion, Power and Other Oil-Free Turbomachinery Systems

Modeling of the rolling and sliding contact between two asperities - Part II: Hemispherical sliding contact

The Influence of Operating Conditions on Tape/Roller Friction Coefficient

Modeling of Fretting Wear under Partial Slip Conditions

Defining the Mechanisms by which Surface Texturing Reduces Friction

On the nature of singularities

[To see more about San Antonio, the Alamo and the River Walk, including pictures and a map.](#)

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STLE is known for excellent education courses. Here is a selection of some upcoming courses.

Predictive Maintenance Training Program offered by Condition Monitoring International. CMI's principals are Jack Poley and Michel Murphy, both STLE fellows. View www.cmiglobal.biz for content outlines and registration. Call 678-942-3582 to register by phone.

Oil Monitoring and Analysis 101 Essentials of Sampling and Reporting
October 23-24 – Hyatt Regency Hotel - San Antonio, Texas
Registration fee: \$925 STLE members/\$1025 for non-members (includes one-year STLE membership). This CMI course includes a seminar workbook plus daily lunches and refreshment breaks.

Oil Monitoring and Analysis 201 Maintenance Planning and Supervision
October 25-26 – Hyatt Regency Hotel - San Antonio, Texas
Registration fee: \$925 STLE members/\$1025 for non-members (includes 1-year STLE membership) This CMI course includes seminar guide, lunches and refreshment breaks.

Certification Opportunities

The STLE OMA certification exam will be offered following each two-day session.

North Texas Section of STLE Presents The ABCs of Lubrication:

A Beginning Lubrication Course for Sales People, Customers, End-Users, Managers, Engineers, Maintenance and Purchasing Personnel, Technicians and Anyone Else

Thursday, October 26, 2006

8 am - 5:15 pm

Continental breakfast and registration begin at 7:15 am

The Petroleum Club of Fort Worth

39th & 40th Floor in the Carter Burgess Plaza

777 Main Street,

Fort Worth, Texas 76102

Advance registration fees are \$299 for members of STLE and \$399 for non-members. The non-member fee includes a one year STLE membership. Advance Registration Deadline: October 13.

After October 13: add \$50 to registration fee on a space available basis at door

For more information or registration form go to <http://www.stle.org/abcsofube/index.cfm> or www.stle.org, then professional development tab, then ABC's of Lubrication
Contact: Clay Calk, Chair of the STLE N. TX Section
(800) 537-7683 ext. 3245 or CALKC@lubricationengineers.com.

Hamilton Section of STLE Presents an Education Workshop: Predictive Maintenance Technologies

Wednesday, November 1, 2006

7:30 AM – 5:00 PM

The Scottish Rite Club of Hamilton

4 Queen St. South

Hamilton, Ontario

(905) 522-1622

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STLE's 62nd Annual Meeting & Exhibition is May 6-10, 2007, at the Philadelphia Marriott in downtown Philadelphia, PA.

and asymptotic fields in contact mechanics

Evaluation of Contact Parameters using Single Asperity Contact Model for the Normal Contact of Rough Surfaces

Approach and Detachment of Two Elastic Spheres in both Wet and Dry Conditions

Influence of Heat, Force, and Secondary Factors on Electrical Contact Resistance in Microscale Gold Contacts

The Effect of Protein Adsorption on the Friction Behavior of Ultra-High Molecular Weight Polyethylene

An Analysis of Elasto-plastic Sliding Spherical Asperity Interaction

Lubricant Depletion and Disk-to-Head Transfer at the Head-Disk Interface

The **deadline for submitting papers** and abstracts is Oct 1. Submit papers or abstracts online at http://www.stle.org/offer_of_paper/index.cfm or through the STLE website (www.stle.org).

The **deadline for submissions for the Student Poster session** is Oct 1. Submit abstracts to hliang@tamu.edu. Consider the networking opportunities of presenting a poster at the premier tribology conference.

Join STLE's online Metalworking Fluids forum today. Complimentary member benefit and a gift!

An online discussion forum on metalworking fluids allows you to find answers to your technical questions, gather information, learn from the experience of others and expand your network of professional contacts.

To read existing discussion threads visit http://orbit.sparklist.com/read/?forum=stle-metal_working_fluids_forum

To join STLE's online MWF forum, http://orbit.sparklist.com/read/all_forums/subscribe?name=stle-metal_working_fluids_forum. The registration process takes less than a minute to complete.

When you register, STLE will e-mail you a PDF of "Tracing the Historical Development of Metalworking Fluids," a chapter excerpted from Metalworking Fluids, Second Edition," the just-published and critically acclaimed book edited by STLE member Jerry Byers.

The sale on Handbook of Lubrication and Tribology: Volume 1: Application and Maintenance, Second Edition edited by George E. Totten has been extended until September 15. Members, [buy the Handbook](#) before September 15 and save \$60 off the publisher's list price. This summer sale price will not be extended again.

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The September 2006 issue of Tribology and Lubrication Technology is slated to mail in about two weeks. The following are highlights of the articles that will be featured in this issue.

TECH BEAT

Special Report: Additive challenges in meeting new automotive engine specifications. By Dr. Neil Canter

STLE NEWS

Survey Results: STLE members rate 2006 Annual Meeting & Exhibition 84% of attendees say Calgary conference was either 'excellent' or 'good.'

PRACTICAL APPLICATIONS

Are you READY for sales success?

Achieving growth as a good salesperson involves discovering new opportunities, being prepared and treating your customers with quality service they deserve.

(Last of a four-part series) By Jerry L. Kennedy

TECHNICAL ANALYSIS

Studies in Plain Bearing Failures

By Patrick G. Swan

LUBRICATION FUNDAMENTALS

The mysterious world of MWF additives When it comes to evaluating additives used in metalworking fluids, chemists and suppliers take a close look at compatibility and

performance issues.
By Dr. Robert M. Gresham

FEATURE ARTICLE

Strategies for monitoring and improving lubricant quality. Technical advances with condition monitoring techniques are allowing end-users to get better information about their lubricants in less time and with greater accuracy.
By Dr. Neil Canter

PEER-REVIEWED PAPER (Editor's Choice)

Atomic Force Microscopy and Raman Spectroscopy Investigation of Additive Interactions Responsible for Anti-Wear Film Formation in a Lubricated Contact.
By Dalia G. Yablon, Patricia H. Kalamaras, Douglas E. Deckman and Martin N. Webster

Columns

President's Report: In praise of section leaders
From the Editor: Pass the torch - not the buck.
Headquarters Report: Education with a purpose.
On Condition Monitoring: Consistency is important in evaluating data.
Worldwide: Advances in manufacturing and lubricating gears.
Departments including Sounding Board, Test Your Knowledge, New Products, Ad Index, Around the Industry and Resources will also be inside.

To join STLE go to https://www.stle.org/secure/membership_application/index.cfm

To renew your membership go to
https://www.stle.org/secure/membership_renewal/index.cfm

To update your records, including email changes, go to
http://www.stle.org/address_change/index.cfm

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