



Wear: Call for Abstracts

Wear remains one of the most significant causes of component degradation, energy loss, reduced efficiency, and maintenance costs across industries including transportation, manufacturing, mining, energy, aerospace, biomedical devices, and consumer products. Advances in materials, surface engineering, lubrication technologies, predictive modeling, and diagnostic techniques continue to improve our understanding of wear processes and enable the development of more durable and sustainable tribological systems.

The Wear Technical Committee for the 81st STLE Annual Meeting & Exhibition invites contributions (papers and presentation) that advance the fundamental understanding of wear mechanisms as well as practical solutions for wear prevention, prediction, and control. Researchers, engineers, and practitioners are encouraged to submit abstracts presenting experimental, theoretical, computational, and industrial case studies that address current challenges and future opportunities in wear science and technology.

Topics of interest include, but are not limited to:

- Fundamental wear mechanisms, including abrasive, adhesive, fatigue, erosive, fretting, impact, and corrosive wear
- Wear behavior of metals, alloys, polymers, elastomers, ceramics, composites, and emerging materials
- Surface engineering approaches, including coatings, surface treatments, and texturing technologies
- Wear in lubricated and unlubricated contacts
- Wear characterization, testing methodologies, and standardization
- Computational modeling, simulation, and digital twins for wear prediction
- Machine learning and data-driven approaches for wear assessment and prognostics
- Wear in electrified systems, including electric vehicles and renewable energy applications
- Wear challenges in manufacturing, forming, machining, and additive manufacturing

For more information and to submit your abstract, visit www.stle.org/annualmeeting.