

TRIBOLOGY: FRICTION, WEAR, AND LUBRICATION
A SUMMER PROFESSIONAL PROGRAM
10 - 14 JUNE 2024
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA 02139-4307

Lecture Time	Monday (6/10)	Tuesday (6/11)	Wednesday (6/12)	Thursday (6/13)	Friday (6/14)
8:30 – 9:30 AM	1. Welcoming Remarks (NPS) Course Overview (NS)	7. Surface Temperature (NS)	13. Wear of Polymers (NR)	19. Case Studies IV: Lubrication (SJ)	25. Biotribology (SJ)
9:30 – 10:00	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
10:00 - 11:00	2. Importance of Tribology (SJ)	8. Sliding Wear (SJ)	14. Wear of Coatings (NR)	20. EHD Lubrication: Gears and Rolling Element Bearings (VW)	26. Nanotribology (NR)
11:00 –12:00 Noon	3. Surface Topography and Surface Properties (NS)	9. Abrasive and Erosive Wear (SJ)	15. Case Studies III: Wear of Polymers and Coatings (NR)	21. Tribology by Design (VW)	27. Discussion (All)
12:00 – 1:30 PM	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	12:30 PM Farewell Lunch
1:30 – 2:30	4. Sliding Friction: Laws and Theories (NS)	10. Wear of Ceramics and Brittle Materials (SJ)	16. Liquid and Solid Lubricants (SJ)	22. Axiomatic Design: Theory (NPS)	
2:30 – 3:30	5. Tribological Testing I: Instrumentation (NR)	11. Case Studies I: Friction (SJ)	17. Boundary and Thin Film Lubrication (SJ)	23. Axiomatic Design of Tribological Systems (NPS)	
3:30 – 4:00	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	
4:00 – 5:00	6. Tribological Testing II: Demonstrations (NR)	12. Case Studies II: Wear (SJ)	18. Fluid Film Lubrication (SJ)	24. Examples of Axiomatically Designed Tribological Systems (NPS)	
	6:00 PM Welcome Reception		6:30 PM Program Dinner		