

CBIMMS Invited Seminar

Nanotribology: The Study of Friction and Wear at the Nanometer Scale

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Monday, December 9, 2002

2:00 PM

Room T130A, North Building

ABSTRACT

The field of nanotribology focuses on developing a superior understanding of the interactions of sliding surfaces, and is partially motivated by progress in MEMS technology. It encompasses a diverse community of experimentalists and theoreticians who focus on mechanical deformation, the origins of friction, the formation and characterization of adsorbed or reacted films, thin-film deposition, hydrodynamic lubrication, and surface characterization. The motivation for and challenges of nanotribology will be presented, along with an overview of the efforts of select research groups in elucidating the nature of sliding surfaces at the nanometer scale. Finally, a summary of the future research directions of the nanotribology lab at USC will be discussed.

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