Institut für Physik

Montanuniversität Leoben

A-8700 LEOBEN, Franz Josef Straße 18, Austria
Tel: +43 3842 402-4601, Fax:+43 3842 402-4602
e-mail: physics@unileoben.ac.at

S E M I N A R
aus
Halbleiterphysik und Nanotechnologie

Mo, 1.4.2019, 11:15 Uhr, Hörsaal für Physik

"Tribological Investigation of Biological Interfaces"

Dr. Kartik S. Pondicherry

Anton Paar GmbH, Graz, Austria

Tribology is the study of friction, lubrication, and wear of interacting surfaces in relative motion. In tribology, the focus is on characterizing the entire tribosystem, which comprises of the two surfaces in relative motion with or without the presence of a medium in between, see Fig. 1.

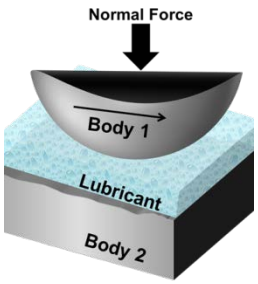

Fig 1: Sketch of a typical tribosystem

The use of tribology as a means to understanding certain aspects of biological systems is gradually gaining traction. One of the goals of research in the field of biotribology is to be able to predict the behaviour of real life systems through model scale tests. In addition to being time and cost effective, model scale tests offer a simpler alternative to complex trials with human subjects. This talk focusses on a few such scenarios including food oral processing, cartilages, ocular tribology, etc., with emphasis on development of test and analysis methodologies.