Tampere University

New insights into tribology and advances in electron microscopy

11th TWC International Wear Seminar
October 31st 2019, Vapriikki Museum Centre, Tampere

The seminar jointly organized by Tampere Wear Center and Tampere Microscopy Center concentrates on the possibilities of advanced microscopy techniques in materials science and tribology. The seminar gives a wide perspective on various microscopy techniques, including SEM, TEM, EBSD, and Raman spectroscopy, and on practical aspects of their utilization.

Program

8.30 *Registration and coffee*

9.00 **Opening of the seminar**
Professor Minnamari Vippola, Tampere University
9.15 **SEM in tribology – tips and techniques to gain more understanding**
Professor Staffan Jacobsson, Uppsala University
10.00 **In-situ SEM nanomechanical testing**
Assistant Professor Gaurav Mohanty, Tampere University

10.30 *Break*

10.45 **Microstructural features in advanced high-strength steels**
Olli Oja, SSAB Europe Oy
11.15 **Reconstruction of parent austenite from martensitic EBSD data**
Tuomo Nyyssönen, Outotec Oyj

11.45 *Lunch*

12.45 **Comparison of various high-stress wear conditions and wear performance of martensitic steels**
Kati Valtonen, Tampere University
13.15 **Formation and characterization of fretting-induced cracks and degradation layers**
Janne Juoksukangas, Tampere University
13.45 **Utilization of TEM in materials science**
Mari Honkanen, Tampere University

14.15 *Coffee break*

14.45 **Utilization of Raman spectroscopy in materials science**
Turkka Salminen, Tampere University
15.15 **Materials characterization methods in tribocorrosion research**
Elina Huttunen-Saarivirta, VTT Technical Research Centre of Finland Ltd
15.45 **Wear Forum Round Table**
Assistant Professor Mikko Hokka, Tampere University: Impact, an International Multiscale Materials Testing Research Group
Kati Valtonen, Tampere University: General Wear Forum news