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 high-strength steels
Ari Saastamoinen, Tampere University

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 Hutuunen-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