



---

## IRG-WOEM OECD

International Research Group on Wear of Engineering Materials



---

### Nanoscale Fretting Wear

T. Liskiewicz

Institute of Engineering Thermofluids, Surfaces and Interfaces; University of Leeds, UK

The tribological contact between surfaces occurs on local asperities and nanoscale interactions at the interface govern frictional behaviour of macroscopic components. Nanowear studies help to solve tribological problems in such applications as Micro-/Nano-ElectroMechanical Systems (M/NEMS) but also provide fundamental understanding of degradation mechanisms of macro scale applications.

In this presentation nano-fretting is defined and main challenges in relation to classical macro-fretting experiments are listed. A short summary of nano-fretting research is given. Finally set of results obtained on nanoindenter featuring special attachments for fretting experiments is presented.