

WEDNESDAY, 26 OCTOBER 2016

THE UNIVERSITY OF SHEFFIELD

**3 PM – SIR FREDERICK MAPPIN BUILDING
LECTURE THEATRE 9**

**"Contacts and Fretting – Unusual (& Practical)
Contact Problems"**

Professor David Hills

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Contact problems are important because all loads (except those developed as body forces) are transmitted into components through contacts. As undergraduates we learn about the Hertz problem, but there are many other kinds of contact, many of which are quite different in character from Hertz' problem, and each has its own properties. In the seminar we will look at some properties of the different kinds of contacts understood, with particular reference to what happens when they carry cyclic shear forces, and therefore undergo slip. Where possible we will reveal how to find the coefficient of friction needed to keep the entire interface adhered; surprisingly, this may be a *geometric* property.