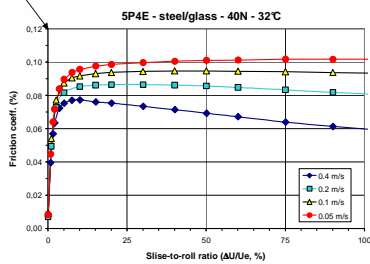
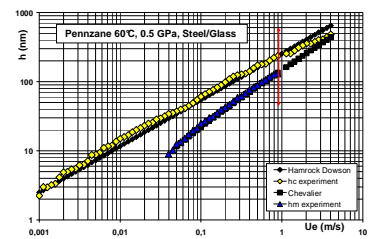
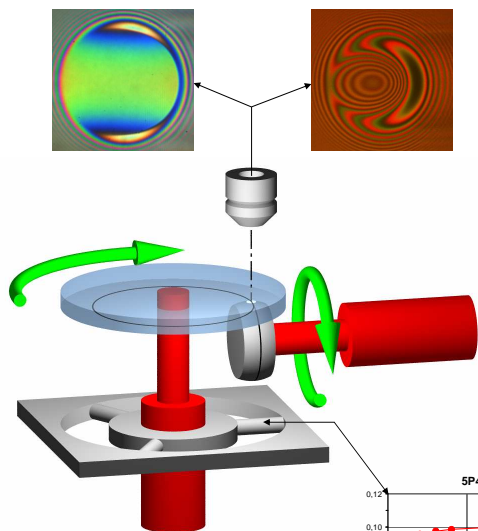
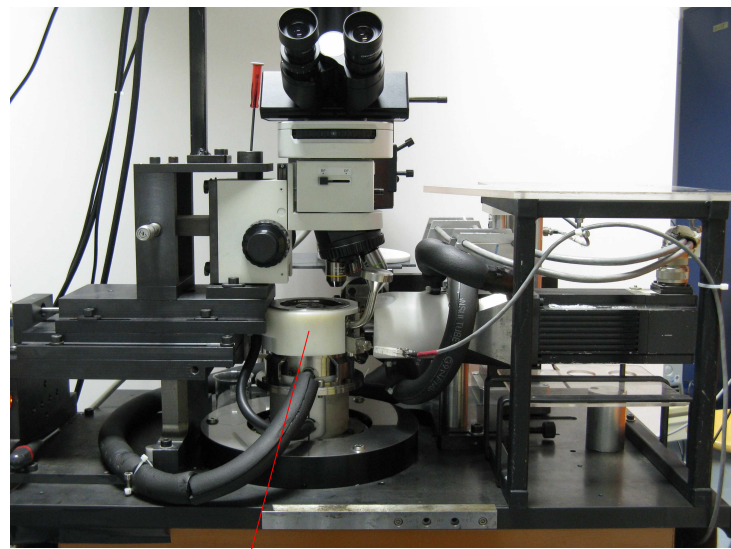


MODEL SIMULATION OF EHD LUBRICATED CONTACTS

- Ball-on-disc geometry
- High control on operating conditions (cleanliness, surfaces, temperature)
- Cornerstone in the validation of numerical models

Context

- EHL exploration (Elasto Hydrodynamic Lubrication)
- Lubricant rheological behaviour
- Influence of additives



Global and in-situ techniques

- Friction forces (multi-directional sensor)
- Film thickness (optical interferometry)
- Pressure distribution (Raman diffusion)

Operating conditions

- Entrainment speed: 1 cm/s to 6 m/s
- Maximum normal load: 300 N
- Film thickness down to a few nm
- Adjustable sliding
- Imposed temperature: 0-120 °C
- Smooth ($R_a < 5$ nm) or real surfaces
- Materials: steel/steel, steel/glass or steel/sapphire
- Lubricant confined with passive materials