EXPERIMENTAL STAND FOR MEASURING NONSTATIONARY FILM LUBRICATION BY INTERFEROMETRY – PART II: ELECTRICAL PARTS, OPTICAL SYSTEM AND RESULTS

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For three fixed loading levels, namely 5.4 N, 12.55 N and 18 N, nominal speed was varied between 33.32 and 100 rpm, following sinusoidal or triangular laws. On the other hand, for three fixed nominal speeds, namely 33,32 rpm, 66.66 rpm and 100 rpm, loading level was varied between 5.4 N and 18 N, following sinusoidal or triangular laws.

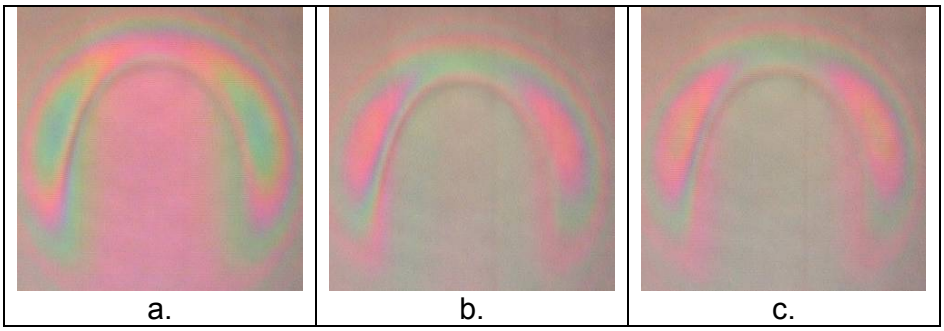

Fig. 5. Interferograms obtained using a normal load of F=12.55 N, a triangular signal of 2 Hz frequency and the following speeds [rpm]: a. 66.66; b. 81.47; c. 96.29

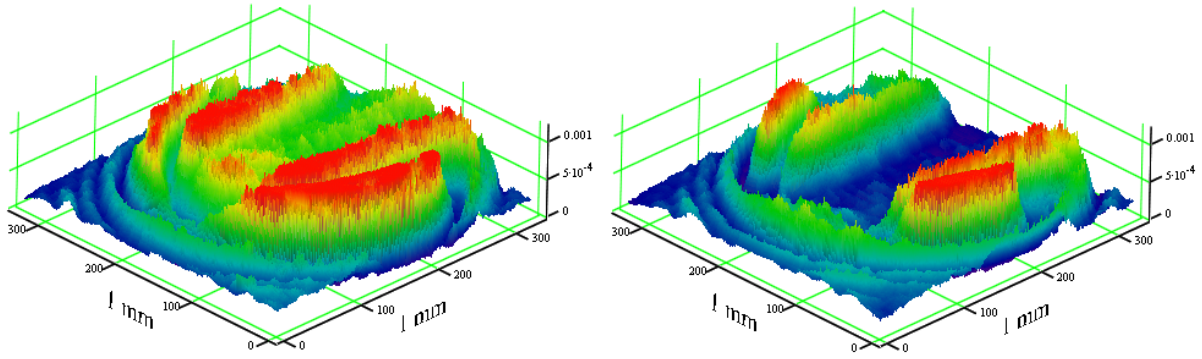

Fig.6. Lubricant film thickness distribution predicted by the numerical program, F=12.55 N
a. u= 37.02 rpm; b. u= 66.66 rpm.

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