

Seminar Series

Slippage effects of liquid lubricants on squeeze film flow

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Date: November 13, 2009 (Friday)

Time: 1:30pm

Venue: Room B5-307, 5/F, Academic Building

ABSTRACT

Lubricant slippage on solid surfaces has been demonstrated in recent experimental studies. It may occur on smooth surfaces that are not fully wetted by the liquid lubricant. This is expected to reduce friction of the friction pair, but at the expense of its diminished load capacity. Recent experimental studies have allowed measurement of these effects. However, the underlying flow model is overly complex for practical analysis because the flow is of both Couette and Poiseuille type simultaneously. The study of slippage may be simplified by decoupling these flow types in two independent experiments, one involving rotational parallel plates and the other squeeze film. The speaker will present her recent work on the latter, the slippage effects on a squeeze film flow.

BIOGRAPHY

Yip Lee Kei received her BEng degree in Mechatronic Engineering from the department of Manufacturing Engineering and Engineering Management of City University of Hong Kong in 2008. She is currently an MPhil student in the same department working with Dr. Patrick, P.L. Wong in the field of tribology.

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All are welcome!