

colloquium

Mathematical modelling of thin liquid films

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時 間：102 年 12 月 27 日 (五) 2 : 30 pm

地 點：應用數學系多媒體教室 (理 408 室)

摘 要：

In this talk I will introduce a model reduction technique, long-wave approximation, in studying thin liquid films. Using this approach one simplifies greatly the full governing Navier-Stokes equations and obtains a low dimensional model that describes the evolution of the film thickness. I will then present an example, thin films flowing down inverted substrates, to demonstrate several mathematical tools in studying the thin film model. Finally, mathematical modelling of thin films of nematic liquid crystals will be discussed.