

國立陽明交通大學應用數學系

演講公告

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講 題：A Particle-scale understanding of the collapse of a
granular raft

時 間：115 年 9 月 22 日(星期二) 下午 14:00–15:00

地 點：(光復校區) 科學一館 213 室

Abstract

Fluid-fluid interfaces laden with discrete particles behave like continuous elastic sheets, leading to their applications in emulsion and foam stabilization. Although current continuum models can qualitatively describe the elastic buckling of granular particle-laden interfaces—often referred to as granular rafts—under compression, the connection between their macroscopic collective properties and the microscopic behavior of individual particles remains unclear. Here, by combining systematic experiments with first-principle modeling, we aim to reveal how the macroscopic mechanical properties of particle rafts emerge from particle-scale interactions and predict the failure modes of a granular raft under compression. Our study highlights the dual nature of particle rafts and exemplifies how collective dynamics can arise from discrete components with simple interactions.

敬請公告 歡迎參加

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