國立陽明交通大學應用數學系
學術演講公告

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講　題：Computational galaxy formation via the small-scale physics of the interstellar medium

時　間：114 年 10 月 28 日(星期二) 下午 14:00 –15:00

地　點：(光復校區) 科學一館 213 室

Abstract

Computational galaxy formation has been remarkably successful in recreating realistic galaxies on a supercomputer using the so-called “cosmological simulations”, where a smooth mixture of gas and dark matter in the early Universe gradually evolves into thousands of galaxies similar to those observed today. The key to this success lies in the physical processes (collectively referred to as "feedback") that drive the cycling of gas in and around galaxies. However, all existing cosmological simulations face a fundamental limitation due to their empirical "sub-resolution" models. In this talk, I will introduce the successes and challenges in this field and discuss exciting recent progress on high-resolution, small-scale simulations that aim to tackle the problem by directly modeling the physics in the interstellar medium. I will also discuss the critical role of innovative numerical algorithms in advancing our field.

敬請公告　歡迎參加

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