THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF APPLIED MATHEMATICS
應 用 數 學 系

The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

Construct solution landscape on a complicated energy landscape

By

Prof. ZHANG Lei
Peking University

Abstract

How do we search for the entire family tree of possible intermediate states, without unwanted random guesses, starting from a stationary state on the energy landscape all the way down to energy minima? Here we introduce a general numerical method that constructs the pathway map, which guides our understanding of how a physical system moves on the energy landscape. The method identifies the transition state between energy minima and the energy barrier associated with such a state. As an example, we solve the Landau-de~Gennes energy incorporating the Dirichlet boundary conditions to model a liquid crystal confined in square box; we illustrate the basic concepts by examining the multiple stationary solutions and the connected pathway maps of the model.

Date : 13 August, 2020 (Thursday)
Time : 15:00-16:00 (Hong Kong Standard Time GMT +8)
Venue : Online Talk via Zoom(Meeting ID: 978 1268 6430)
Click to join :
https://polyu.zoom.us/j/97812686430?pwd=cEdnV0I3U0l1Ykw1emFIT2FzK0h2UT09

*** The Talk will be given in English.**

Click to join (Zoom)

*** * * ALL ARE WELCOME * * ***

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