THE UNIVERSITY OF CHICAGO

COMPUTATIONAL AND APPLIED MATHEMATICS COLLOQUIUM

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From Effective Diffusivity to Chaoticity of the Flows

THURSDAY, October 1, 2020, at 5:05 pm
via ZOOM

ABSTRACT

In this talk I will first briefly introduce the result in my PhD thesis, Lagrangian approach in computing effective diffusivities. The main focus is on the phenomenon found during the numerical experiments. There is strong correlation among effective diffusivities in large Peclet number regime and the Lyapunov exponent in deterministic flow. Then I will propose some future research direction in this regard.

In addition, I will go over my recent research projects. Topics include non-convergence test in simulation of dynamical system, sampling problem in gPC and deep learning.

For further information and inquiries, please email Zellencia Harris at zellenciah@uchicago.edu. If you wish to subscribe to our listserv, please visit the following website: https://lists.uchicago.edu/web/subscribe/cam_colloquium."