THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF APPLIED MATHEMATICS
應 用 數 學 系

Online Seminar

Prof. Gilles Vilmart

University of Geneva, Switzerland

Topic

Explicit stabilized integrators for stiff systems: from deterministic to stochastic, optimal control, and convex optimization problems

Date| Time

7 January 2025 (Tuesday) | 4:00pm – 5:00pm (HK Time)

Meeting ID | Password

889 8449 2034 | 0107

Zoom Link

https://polyu.hk/gnVsO

Abstract:

Explicit stabilized integrators are an efficient and popular alternative to implicit or semi-implicit methods to avoid the severe timestep restriction faced by standard explicit integrators applied to stiff diffusive problems.

In this talk, we explain how explicit stabilized methods, initially proposed in the literature for stiff systems of ODEs and then SDEs and SPDEs, can also be efficiently applied to stiff optimal control problems and convex optimization problems.

ALL ARE WELCOME