



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON APPLIED MATHEMATICS

Recent progress in coupled subdiffusion equations and related inverse problems

By

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Abstract

The last decade has witnessed explosive developments of nonlocal PDEs with fractional derivatives in time. Along with the establishment of linear theory for subdiffusion equations, increasing attention has been paid to coupled systems of time-fractional PDEs. In this talk, we share several latest results on forward and inverse problems for coupled subdiffusion equations. For the asymptotic behavior, we discuss a sharp superlinear decay by the coupling of fractional and non-fractional equations. For the maximum principle, we introduce the strong positivity property of subdiffusion systems with partially vanishing data, as well as its application to the uniqueness of an inverse t-source problem.

Date : 4 September 2026 (Friday)
Time : 4:00p.m. – 5:00p.m.
Venue : Room 3494 (near Lift 25/26)

All are Welcome!